

Recent advances in the modal model checker Meth8 and VŁ4 universal logic

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In applied and theoretical mathematics, assertions are categorized in alphabetical order as: axiom; conjecture; definition, entry; equation; expression; formula; functor; hypothesis; inequality; metatheorem; paradox; problem; proof; schema; system; theorem; and thesis. We evaluate 1750 artifacts in 16211 assertions to confirm 992 as tautology and 15219 as *not* (93.88%) in over 3350 draft pages by the Meth8/VŁ4 model checker. *Meth8* is the acronym for *mechanical theorem prover* in 8-bits.

The semantic content or predicate basis of some expressions on their face does not disqualify them from evaluation by Meth8 in classical modal logic. However, the rules of classical logic, as based on the corrected Square of Opposition by Meth8, apply to virtually any logic system. Consequently some numerical equations are mapped to classical logic as Meth8 scripts.

The rationale for mapping quantifiers as modal operators is based on satisfiability and reproducibility of validation of the 24-syllogisms from the corrected Square of Opposition.

Test results are refuted as *not* tautologous, confirmed as tautologous, or neither. For a paradox, *not* tautologous means it is not a paradox, but not necessarily a contradiction either.

The experimental tests used variables for 4 propositions, 4 theorems, and 11 propositions. The size of truth tables are respectively for 16-, 256-, and 2048- truth values, using recent advances in look up table indexing.

The Meth8 modal theorem prover implements the logic system variant VŁ4 which corrects the quaternary Ł4 of Łukasiewicz. There are two sets of truth values on the 2-tuple {00, 10, 01, 11} as respectively {False for contradiction; Contingent for falsity; Non contingent for truthity; Tautology for proof} and {Unevaluated; Improper; Proper; Evaluated}. The designated *proof* value is T for tautology and E for evaluated. The model checker contains recent advances in parsing technology named sliding window.

The mapping of formulas in Meth8 script was performed by hand, checked, and tested for accuracy of intent. The Meth8 script uses literals and connectives in one-character. Propositions are p-z, and theorems are A-B. The connectives for {and, or, imply, equivalent} are {&, +, >, =}. The negated connectives for {nand; nor; not imply; exclusive-or} are {\, -, <, @}. The operators for {not; possibility $\diamond\exists$; necessity $\square\forall$ } are {~, %, #}. Expressions are adopted for clarity as: (p=p) for tautologous; (p@p) for contradiction; and (x<y) for $x \leq y$. The expression $x \leq y$ renders as $\sim(y < x)$, but $x \geq y$ renders as $\sim(x < y)$.

Definition	Axiom	Symbol	Name	Meaning	2-tuple	Binary ordinal
1	p=p	T	tautology	proof	11	3
2	p@p	F	contradiction	absurdum	00	0
3	%p>#p	N	non-contingency	truthity	01	1
4	%p<#p	C	contingency	falsity	10	2

Note the meaning of (%p>#p): a possibility of p implies the necessity of p; and some p implies all p. In other words, if a possibility of p then the necessity of p; and if some p then all p. This shows equivalence of respective modal operators and quantified operators as in Appendix.

Meth8 is the engine for mapping sentences of natural language into logical formulas.

References

- James, C. (2010). Proof of four valued bit code (4vbc) as a group, ring, and module. Third world congress and school on universal logic. Estoril, Portugal.
- James, C. (2015a). Theorem prover Meth8 applies four valued Boolean logic for modal interpretation. First World Conference: Analogy. Benemérita Universidad Autónoma de Puebla, Mexico, November 4-6, 2015, Handbook, ISBN 978-83-65273-01-1, 50-51.
- James, C. (2017). Meth8 on Karl Popper $Ex(Gx)$. Second World Congress on Religion and Logic. University of Warsaw.
- Łukasiewicz, J. (1920). On Three-valued Logic, in L. Borkowski (ed.), Amsterdam, North-Holland, 1970, pp. 87-88.
- Łukasiewicz, J. (1953). A system of Modal Logic. The Journal of Computing Systems, 1, 111-149.
- Łukasiewicz, J. (1954). On a controversial problem of Aristotle's modal syllogistic. Dominican Studies. 7, 114-128.
- Łukasiewicz, J. (1957). Aristotle's Syllogistic Logic (Second Edition). Clarendon Press, Chapter VII.

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No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1	ABC	Conjecture	1	
2	Shevenyonov's proof	Conjecture	6	
3	Abductive reasoning	System	1	
4	Induction, abduction, deduction: Peirce	Inference	2	1
5	Abduction, induction, confirming deduction	Inference	2	1
6	Abduction, induction, confirmation of deduction	Inference	8	0
7	Abelian groups, absoluteness, \aleph_1 -freeness	Conjecture	5	
8	Abelian groups, solvability of ordered, Gurevich 1964	Conjectures	6	
9	Abortion	Conjecture	2	1
10	Conscience, deflection by Pope Francis to parish	Conjecture	6	2
11	Absolute power of omnipotence as evil	Question	2	2
12	Abstract logic of Hájek integrals, Linstrom's anal. structs.	System	6	
13	Abstract theory of segments using Prolog	Proofs	15	3
14	Accounting, momentum, bookkeeping, triple-entry	System	5	
15	Ackermann / Bernays–Schönfinkel–Ramsey fragments	Complexity	14	
16	Ackermann's approach to quantifier reduction	System	20	2
17	Ackermann's function, recursion, provers AFL,Isab./HOL	Experiment	7	
18	Ackermann's rule, universal truth of operator statements	Framework	7	
19	Action logic, undecidability	Definition	2	
20	Adaptive algorithm for molecular simulation	Conjecture	5	
21	Additive reducts of real closed fields as strongly bounded	Theory	5	
22	Additivity of measure implies additivity of category	Theorem	6	
23	Adequacy, sufficiency, formalization in predicat logic	Conjectures	14	
24	Adjunction rules (shunting) on Kripke monoids	Conjectures	13	
25	Affinoids, stably uniform as sheafy	Conjecture	9	
26	Agency of Ian Rowe	Conjecture		2
27	Agent-update model as private-action Kripke models	Models	4	
28	Agile development, theory, practice, novel resuscitation	Conjecures	24	2
29	AGM / Levi and Harper bridging principles	Postulates	7	3
30	Remainder sets, paraconsistent revisions	Operators	5	
31	Agnostic, atheist, fideist, skeptic vs theist, Historic Ch.	Definitions	15	
32	Agnostic hypothesis testing	Hexagon	9	2
33	Subset of atheism from no-belief	Conjecture	4	2
34	Agronomy models for development of software items	Models	7	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
35	AI (artificial intelligence): divide the dollar competition	Experiment	1	
36	Engine logic at iask.ai by truth table error	Contradiction	9	
37	Epistemic, fallacy of the inverse as contradiction	Contradiction	8	
38	Reduction for scalable deep learning	Algorithm	3	
39	Robot, inhibit error exception on unique utterance	Procedure	3	
40	AI-Anon Anne Smith journal, table of contents			
41	Alcoholism: non-heritable disorder and no medicinal cure	Conjecture		2
42	Alcohol/substance use disorder caused by heritability	Conjecture	15	
43	Alcoholics Anonymous (AA) BB: We agnostics, p 53	Conjecture	5	
44	Absolute purity, honesty, unselfishness, love (4)	Theory	1	1
45	Alcoholism as a disease	Conjecture	4	
46	Aphorism acceptance inverse to expectation	Proportion	1	
47	Aphorism acceptance as answer	Conjecture	2	2
48	Contradictory sayings	Paradoxes	4	
49	Higher power and God	Dilemma	35	4
50	Higher power is not God in 12-step theory	Conjectures	5	
51	Hydraulic Step 2	Conjecture	1	
52	"life being good to me" as "being stability / God"	Conjectures	10	
53	Mapping of 12 concepts of world service	Conjectures	7	5
54	Mappings of 12 traditions	Conjectures	17	2
55	Prayer for God's will, Frank McKiven	Conjecture	4	
56	Responsibility statement by Bill Wilson, 1965	Affirmation	3	
57	Spiritual axiom	Axiom	2	
58	Spiritual experience, appendix, resuscitation	Conjectures	4	2
59	Three legacies	Theorems		4
60	12-step recovery of non-heritable mental disorder	Conjecture		2
61	12-step recovery theory as curse of the fig tree	Theorem	3	
62	Way to keep sobriety as giving away	Conjecture	1	
63	Alexandroff correspondence	Conditional	3	
64	Algebraic subgroups for fundamental sets	Conjecture	3	
65	Algebras of partial functions via axiom $a-(b-a)=a$	Conjectures	4	
66	Algorithmic corresp., analytic rules, MASSA prover	Conjectures	16	
67	Alligator theorem prover for dependent type systems	Theorem	3	
68	Almeida / Pearce impossible commands / options	Theorem	26	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
69	Alternating Turing machines (ATMs)	Problem	3	
70	Alternative set theory (AST): axioms, definitions	Theory	12	
71	Real numbers, functions: natural numbers	Theorem	3	
72	Alvarex-Picallo/Lemsay Cartesian difference categories	Conjectures	3	
73	ADA (Am. Disab. Act) DoJ web-accessibility guideline	Guidance	7	
74	Amphitone logics (both montone and antitone logics)	Logics	15	
75	Analogy as inference	Rule	3	
76	Analysis as both correct and informative	Paradox	5	
77	Analytic principles of choice and dependent choice	Axioms	3	
78	Analytic theology, feminist political Marxist polemic	System	43	7
79	Analytical theology as declarative and deductive logic	Conjectures	8	
80	Analytical theology, scientific basis as GATRG	Definition	4	
81	Anderson anti-paradox, COB	Theorems	9	2
82	Anderson division by zero as nullity	Theorem	3	
83	Anonymity logic of inclusion logic	Definition	5	
84	Announcement-knowledge axiom / epistemic actions	Logics	8	
85	Anselm's Proslogion	Conjectures	15	1
86	Answer set programming	Conjectures	18	
87	ANTHEM, verification of locally tight programs	Prover	5	
88	Approximations of theories	System	1	
89	Aquinas infused virtue	Mapping	7	
90	Arch-homosexual assertion by feminist mantra/abortion	Assertion	10	
91	Arch-liturgical assertion, good prayer as godly	Theorem	8	
92	Arch-pedophile argument based on age of consent	Conjecture	3	
93	Arch-sociopathic assertion by Klaus Schwab's WEF	Assertion	10	
94	Argument from chance, argument from evil	Arguments	8	
95	Armstrong's ontological method argument	Conjecture	6	1
96	Aristotle's two-sided possibility	Operator	6	
97	Arithmetical hierarchy in Heyting intuitionistic logic	Theorems	140	
98	Arrow's impossibility	Theorem	7	
99	Aseity, Descartes, contra-adornment	Theorem	4	
100	Assertion logic, verify quantum progs. w. prob. control	Conjecture	5	
101	Athanasian creed (Holy Trinity)	Credo	1	2
102	Atonement	Theorem		3

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103	Automatic teller machine model (ATM)	Model	3	
104	Automatic verification of $\forall\exists$ -hyper properties, RHLE	System	3	
105	Automorphisms	Group	10	
106	Avicenna-Bolzano proof of God, formal natural theology	System	32	
107	Awareness logic, relativized Boolean algebra	System	14	
108	Axiology of God	Claims	8	1
109	Axiom pinpointing	Method	3	
110	Axiomatic approach to higher order set theory	Method	21	
111	Axiomatizing category theory in free logic	Axioms	5	5
112	Fuzzy logic with graded modalities	Conjecture	1	
113	Parameterized, restricted second-order logics	Axioms	17	
114	Axioms, modal, non-bivalent, street provers	Axioms	18	3
115	Bachmann-Howard/derivatives (only one generic lattice)	Conjectures	11	5
116	Banach order space, generating positive cone	Definition	2	1
117	Banach-Tarski , shorter resuscitation attempt	Paradox	2	
118	Another student attempt claiming axiom of choice	Paradox	8	
119	Crucial claim in Step 3 of proof, shortest	Paradox	1	
120	Bar recursion	Mapping	2	
121	Barcan	Formula	37	32
122	Barwise compactness	Theorem	2	
123	Basic Logic (bL)	System	6	1
124	Bayes rule	Rule	11	11
125	Bayes rule, odds form, shortest refutation	Rule	4	
126	Bayesian entailment	Hypothesis	4	
127	Bayesian network for only conditional probabilities	Definition	9	
128	Bayes' theorem as open question	Theorem	5	
129	BCI- / BCK-algebra	System	5	3
130	BCST (basic constructive set theory) subset of CZF, IKP	Theorem	10	
131	Beal conjecture	Equation	5	2
132	Bell / CHSH / Spekken toy model	Inequalities	7	
133	A shorter refutation	Theorem	2	
134	A simpler refutation	Theorem	2	
135	Bell's inequality by axiom of empty set	Theorem	2	
136	Bogus Bellian logic (BBL)	Theorem	5	

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137	Coercive proof	Theorem	2	
138	Coin toss proof	Conjectures	2	
139	Original inequality with assumption	Conjecture	4	
140	Original inequality with assumptions	Conjectures	5	
141	Original inequality and CHSH	Conjectures	6	
142	Positive reasons proof	Theorem	6	3
143	Temporal logic	Theorem	1	
144	Tropical sum	Method	1	
145	Bellman's Lost in the forest problem, solution	Theorem		4
146	Berkeley	Paradox	1	
147	Bernstein-Vazirani	Algorithm	4	1
148	No-cloning theorem	Theorem	2	
149	Bertrand-Chebyshev theorem / postulate	Theorem	2	
150	Betweenness theory	Axioms	9	7
151	Order-theoretic trees	Axioms	11	
152	Partial orders	Axioms	11	
153	Béziau's nightmare, refuting allegation on Łukasiewicz	Conjecture	6	
154	Béziau-Wolenski arch-scientific assertion	Arch-assertion	5	
155	BF calculus, Spencer-Brown Primitive arithmetic	System	8	
156	Bi-abductive inference in separation logic	System	11	2
157	Bianchi identity refutes decomposition of curvatures	Axiom	2	
158	Bijjective function basis, cardinals, Cantor set theory, fnd.	Assumption	16	
159	Bilateral setting, uniqueness of logical connectives	Conjectures	3	
160	Bilimoria's comparative metaphysic of Hindu nonbeing	Essay	28	4
161	Bill Gates' prognostication of civil war to end world	Prediction	5	
162	Binary overlap-free words, first-order, decidable, Walnut	Theorem	8	
163	Binding or loosing of sin as non-salvation or salvation	Theorem		2
164	Birnbacher's two refutations based on Schopenhauer	Refutations	12	
165	Biscuit conditionals	System	13	
166	Bisimulation as logical relation via separation axiom	Theory	7	
167	Bisimulation, coinduction, Howes' congruence	Proof method	5	
168	Bisimulation semantics, process algebra	Conjecture	3	
169	Bitstring and question-answer	Semantics	18	
170	Bivalent, four-valued, modal, quantified equations, listed	Tables		

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
171	Black box tests	Theory	5	
172	Blameworthiness degrees	Coalition	3	5
173	Block argumentation	Method	15	
174	Blok-Esakia	Theorems	5	
175	Bogdanov map, 2D conjugate of Hénon map	Formula	1	
176	Bolzano's non contingent proof of God	Formalization	12	3
177	Boolean algebra, necessary and sufficient isomorphism	Conjectures	3	
178	Boolean connectives, two-dimentional isotopes	Conjectures	6	1
179	Boolean, "Big", equations as logical square of opposition	Theory	16	
180	Boolean functional synthesis engine by Skolemization	Conjectures	7	
181	Boolean functional synthesis BFS bounded tool BNSynth	Problem	5	
182	Boolean logic functions in networks of living fungus	Hypothesis	18	
183	Boolean logic, quantifying literals to explain AI	Conjectures	66	
184	Boolean polynomials	Conjecture	3	
185	Boole's develop. thrm. / false attrib. of Kripke modality	Theorems	30	
186	Boole's develop. thrm./ universe class/ eigenlogic	Theorems	30	
187	Boole's eternal causation/ refut. var. elimination Clarke	Theorems	27	2
188	Boole's mapping of Clarke and Spinoza on evil	Theorems	32	8
189	Boolos' curious inference by Isabelle/HOL as ATP	Proof	20	
190	Boone-Rogers, uniform word problem	Theorem	2	1
191	Borel base and hull	Conjectures	2	
192	Born rule	Theorem	6	
193	Exclusivity rule as basis	Theorem	5	
194	Borsuk-Ulam theorem (BUT)	Conjecture	1	
195	Bound and free variables irrelevant for truth table results	Syntax	9	
196	Bounded and Σ_1 formulas in PA	Conjecture	1	
197	Homomorphism / fiber products of lattices	Conjectures	3	
198	Lattice-ordered groupoids, residuated	Theory	5	
199	Modal logics on transitive frames	Conjecture	6	
200	Bourbaki-Moroianu-Tarski fixed point theorem	Theorems	10	
201	Boyer's question	Paradox	3	
202	Brain activity, cognition, emotions, mental faculty	Conjectures	16	2
203	Rain's basic wiring and computaional logic, hard solution	Theory		
204	Branching quantifier (Hintikka)	System	3	

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205	Brouwer fixed point theorem (BFPT)	Conjecture	3	2
206	Dense linear orderings (DLO)	Axiom	4	
207	Browder's theorem	Conjecture	1	
208	Buddhism consciousness: the goat on a rope	Paradox	8	
209	Buddhism four noble truths (three-truth conjecture)	Conjecture	8	4
210	Buddhist catuskoti of four-points and sunyata	Conjectures	14	
211	Buddhist logic	Tetralemma	12	
212	Bunch theory with derivations	Theory	14	
213	Buridan's Ass	Paradox	11	
214	Schemata and Barcan formula	Conjecture	8	8
215	Business plan to sell 55% of an LLC corp. confirmation	Plan		4
216	Business processes	Framework	7	
217	Buss's bounded arithmetics	Hierarchy	6	
218	C mode of nonmonotonic consequence	Operator	3	
219	Cabannas objectivity	Theory	1	1
220	Hypothesis recast in equational arithmetic	Conjecture	13	
221	Calvin's lesser magistrate, private citizen arguments	Doctrine	6	
222	Cancellation law, basic arithmetic (BA), MRDP thm	Conjecture	9	
223	Cantor's continuum conjecture, binary injection	Hypothesis	2	
224	Axiom of infinity, invalidating aleph-zero (\aleph_0)	Hypothesis	35	
225	Continuum conjecture, interpreted	Hypothesis	3	
226	Diagonal argument	Proof	3	
227	Diagonal argument of equal cardinals and ordinals	Proof	12	
228	Disproof of one of Cantor's cardinals	Confirmation	2	
229	Pairing	Functor	1	1
230	Sesquicentennial of enormity of Cantor's theorem	Transcript		
231	Set definition	Theory	13	
232	Theorem, null string node, vectors in stick lattice	Theory	6	2
233	Uncountable sets, existence of	Theory	5	
234	Cardinals, large: choiceless, extended	Definition	4	
235	Independence via interpretability hierarchy	Conjectures	19	
236	Ineffable	Conjecture	5	
237	Sets, duality and preservation theorems	Theory	3	
238	Carroll's tortoise and Achilles	Paradox	3	2

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239	Caswell's significant curriculum issues (1952)	Theorem	5	1
240	Categoricity, set-theoretic reflection, extensionality	Definition	4	
241	Causality	Axiom	3	2
242	Causal criterion of event identity	Definition	2	
243	Category algebra and theory	System	21	
244	Category composition of morphisms	Definition	1	
245	Tannakian via Iwasawa embedding	Axioms	1	
246	Category semantics containing implication connectives	Conjecture	3	
247	Category theory by lattice identity / partitions	Conjectures	5	1
248	Abstract modal quantification	Conjectures	3	
249	axioms of sets and relations due to braiding	Axioms	4	
250	Non-extensional, partial ops/classifs, foundation	Theory	10	
251	Unrestricted by Feferman's partial app/classif	Theory	3	
252	Via commutativity for abstract adjointness	Conjectures	12	2
253	Cauchy product inequality	Theorem	13	
254	Cauchy sequences as metric on nearly computable reals	Conjecture	13	
255	Causal reasoning by chain rule for probabilistic effect	Theory	4	
256	Causal reasoning reduced to probabilistic reasoning	Conjecture	3	
257	Causal time loops and the immaculate conception	Conjectures	27	
258	CC conjecture of Lin Fan Mao	Conjecture	2	
259	Ceers: computably enumerable equivalence relations	Theorem	4	
260	To solve word problems	Definition	3	
261	Ceteris paribus semantics for deontic logic	Conjecture	5	
262	CEVES expansion model of electricity and transportation	Model	5	
263	Chain rule of finite calculus, multivariable dx implies	Conjecture	6	
264	Chaitin's theorem of incompleteness and L constant	Theorem	3	1
265	Chang's conjecture and derived projective determinacy	Conjecture	15	
266	Chinese room argument: Brain Simulator Reply (BSR)	Conjecture	2	4
267	Chisholm paradox	Paradox	2	
268	CHSH inequality	Conjecture	1	
269	Dual reality	Conjecture	5	
270	Christianity, Judaism, Mohammadanism	Theologies	3	3
271	Christology, fundamental, mutability	Problem	5	2
272	Invoking the Holy Trinity with man as is	Problem	5	

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273	Religions with no answer to fundamental problem	Problem	10	2
274	Chromatic number of product of graphs as countable	Conjecture	2	
275	Chrysippus' Dion and Theon	Paradox	26	
276	Church	Thesis	2	
277	Church's thesis	Theorem	4	
278	Arithmetical form	Thesis	2	
279	Consistency with Martin-Löf type theory	Theorem	3	
280	Parametric and synthetic computability wo choice	Conjecture	3	
281	Church-Rosser	Theorem	2	
282	Cila, da Costa's C_1 , paraconsistent set theory	Logic	3	
283	Class of all sets; size limit; ax-groth; grothpw; Tarski	Axioms	6	
284	Class of models to represent fundamental physics	Conjectures	86	
285	Classical decision, reduction property based on order	Problem	9	
286	Classical linear (CL-) algebra, residuation property	Conjecture	3	
287	Clausal language	System	5	
288	Clause set cycles, unprovability results, induction	Method	8	
289	Clausius-Clapeyron on spacial dimension	Equation	1	
290	Clifford tori 2D / Kanban cell neuron	Definition	2	3
291	Cloud forensic problem solved as undergraduate exercise	Problem		
292	Cloward-Piven strategy of social chaos	Conjecture	2	
293	Coalgebraic cover modality, completeness, many valued	System	50	
294	Coherence in modal logic	Refutation	1	
295	Objection, and solution	Objection	18	2
296	Co-inductive computing with continuous objects	Rule	4	
297	Coinduction, regular	System	3	
298	Coinductively infinite streams of specified codata	Technique	5	
299	Collatz (briefest known confirmation)	Conjecture	4	1
300	Collection theory as set of all closure sentences	Schema	1	
301	Communications-based train control (CBTC)	Algorithm	13	
302	Communications, four sides model	Theory	3	
303	Commutative short circuit on propositional logic	System	1	
304	Comonad, pebbling in finite model theory	Conjectures	12	
305	Comonadic semantics, guarded fragments	Conjecture	7	
306	Comonadic semantics, relating structure and power	Conjectures	9	

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307	Comorphism of sites for Grothendieck toposes	Theory	1	
308	Complementarity inequality	Refutation	2	1
309	Completeness: inclusion/equivalence of universality	Conjecture	1	
310	Complex (\mathbb{C}), imaginary number rendering	Method	1	1
311	Compliance checking based on semantic rules	Method	2	
312	Compositional truth	Model	3	
313	Computer simulation model theory (CSMT)	Method	2	
314	Conceivable statement of Perez confirmed	Definition	18	1
315	Concept analysis, flexible audits, Dempster-Shafer	Theory	9	
316	Conceptivistic / containment logic: proscription	Systems	3	
317	Concolic testing for logic programs in SMT	Method	8	
318	Conditional logic: improved Adams	Hypothesis	7	
319	Events in QL	Conjectures	8	1
320	Necessitarianism	Conjectures	6	
321	Typicality, multilayer perceptrons (MLPs)	Interpretation	14	
322	Conditionals in mathematical logic and natural language	Difference	22	
323	Conditionals: indicative; subjunctive; normative as taut.	Semantics	6	2
324	Conjunctive queries in lightweight ontologies	Frameworks	16	
325	Confluence in rewrite systems	Property	3	
326	Connexive logic: Wansing's nightmare	System	2	
327	Aristotle, Boethius justifying connexive	Theses	4	
328	Aristotle, Boethius, Abelhard, Wansang	Conjectures	22	
329	De Finettian logic conditionals	Indicatives	10	
330	Conradie's splitting and elimination rules	Axioms	20	
331	Conscience	Theorem	1	1
332	Consequence-finding in a weak theory of arithmetic	Conjecture	7	
333	Consequence operators, general logic, ultralogics	Axioms	17	
334	Nonstandard ultra-logic-systems, GGU-model	System	16	
335	Ultralogic based on consequence operator	System	44	
336	Conservatism (phenomenal) = exclusivism (seemings)	Principles	8	
337	Constraint satisfaction problems (CSPs), temporal combo	System	5	
338	Constructive analysis with witnesses in Minlog	Assistant		3
339	Constructive logic	System	14	2
340	Set theories, admissable rules	Logics	39	

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341	Constructive-math: Ishihara's tricks on LPO/WLPO	Principles	3	
342	Constructive operations research, Berger-Svindland ruse	Conjecture	29	
343	Context free language CFL, 2-nested words	Class	10	
344	Contingent, necessitarian, and internal, external	Conjectures	5	
345	Continuum hypothesis (CH)	Conjecture	2	1
346	Independence of CH and claimed formal proof	Proof	56	
347	Wetzel's undecidable prob. (Erdős), Isabelle/FOL	Prover	9	
348	CH: forcing; regularity=choice; epsilon-set-induction	Conjecture	14	
349	Chisholm modal paradox, Kripke QML, toleration MTP	Paradox	14	
350	Chisholm's paradox, resuscitated with with assumption	Paradox	2	2
351	Constituency in borrowing properties	Conjecture	3	
352	Cook's PV logic redefined by refuted Dowd equations	Theory	14	
353	Contradictory Christology	Dilemma	9	
354	Cook-Reckhow	Definition	6	
355	Coq proof assistant	Prover	1	
356	Type theory	Axioms	4	
357	Correspondence of van Benthem	Theory	66	1
358	Correspondence theory of truth	Theorems	22	
359	Corsi logic in one variable	System	6	
360	Cosmobiology: fundatmental prob, life on- and off-earth	Problem	12	
361	Cosmology, geocentric from Aristotle, Ptolemy, Aquinas	System	2	
362	Countable groups, hyperfinite measuring actions	Model	6	
363	Counterfactual analysis of causation	Reversal	1	
364	Counterfactual conditional as modality of irreality	Definition	4	
365	Counterfactuals with vector logic	Proof	14	
366	Counterpart theory on intensionality logic	Theory	7	3
367	Courcelle's theorem and dervived theory	Theorem	15	
368	Covid-19 recession, ethnic overdose in Colorado 2015-20	Statistics		
369	Crager's oneness: unity, unit-hood, uniqueness symbols	Mapping		
370	Craig's interpolation, shorter and derived conjectures	Theorem	10	
371	Constructive by Fefferman	Theorem	4	2
372	Constructive using Maehara's technique	Theorem	7	
373	Creative theories in degrees of unsolvability	Theorem	1	
374	Critical race theory (CRT), denial by racist white rage	Principle	8	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
375	CTMC: continuous time Markov chains, life sciences	Theory	18	
376	Curry-Howard correspondence	Conjecture	4	
377	Composition combinator B function, Hilbert style	Conjectures	9	
378	Curry-Howard correspondence, shortest	Conjecture	2	1
379	Curry-Howard: natural deduct., orthomod. quantum logic	System	16	
380	Curry's paradox	Paradox	2	
381	Cut elimination/normalization for generalized calculi	Conjecture	2	
382	Cut elimination, analytic	Restriction	3	
383	Cut restriction	Theory	5	
384	D equations, ultrafilter contra continuum problem	Equation	1	
385	DARPA artificial intelligence exploration (AIE)	Description	7	
386	DARPA definition of trustworthy	Definition	9	
387	De Morgan algebras, existentially closed	System	2	
388	Decidable logics, classical, extended with % quantifiers	System	3	
389	Decoherence (pre-measurement) quantum mechanics	Formula	1	
390	Decomposition theorems, combinatorial proofs for FOL	Theorems	12	
391	Dedekind lattice identity	Axiom		1
392	Deduction-detachment, universal deduction	Theorem	3	
393	Deduction, ecumenical, with stoup for propositional case	Systems	51	
394	Deduction, natural, ancient	Conjecture	12	
395	Deduction, natural for first-order logic (FOL)	Calculus	7	
396	Deduction, natural with new connective	Axioms	4	
397	Deduction, non-compact, for GL via Löb formula	System	3	
398	Deductive reasoning, noisy (NDR)	Conjectures	10	2
399	Deductive systems, order algebra, coprod./amalgamation	System	5	
400	Defeasible reasoning	Theory	28	
401	Defeasible reasoning, parallel stratified, Tweety case	Rules	8	
402	Deligne completeness link positive / coherence logics	Theory	8	
403	DEMETER models of EU: afgri/food; WC3 data quality	Models	8	
404	Dempster-Shafer belief and plausibility	Theory	3	
405	Density of all Turing and truth table degrees	Formula	2	
406	Deontic logic, alleged intuitive problems	Logic	5	
407	Deontic logic, defeasible, bottom-up, pragmatic oddity	Theory	9	
408	Deontic paradox, frame-, action-based language FLINT	Paradoxes	11	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
409	Dependence deciding in logic and algebra	System	16	
410	Dependence logic, distinct tensor disjunction, epistemic	Conjectures	7	
411	Dependency structures with choice (DSC), antimatroids	Model	10	
412	Dependent choices (DC) on supercompactness	Axiom	2	
413	DC with axiom of determinacy (AC) in mice	Axioms	2	
414	Derivative definition in mathematical logic	Definition		2
415	Description logic	System	2	
416	Cardinality constraint, logic ALCSC	System	7	
417	Free with definite descriptions	System	13	
418	Model languages ALC, EL on concrete domains	Proofs	12	
419	Power set POW of any Ω -model	Operator	4	
420	Unions in descriptively near sets	Operator	6	2
421	Deutsch constructor theory	Conjectures	4	
422	Dialetheism	System	4	
423	Dialetheism: inconsistent	System	2	
424	Paraconsistent, relevance logic	System	25	
425	Paradox of dialetheia	Paradox	7	1
426	Dichotomy of selection	System	1	
427	Difference algebras, a variety	Axioms	10	
428	Difference algebras, minimal axioms of Boolean algebra	Algebra	57	4
429	Differential equations, singularities via logic	Approach	12	
430	Differential Hoare logics with Isabelle/HOL	Logic	6	
431	Reasoning	Logic	1	
432	Diproche system for mistake diagnosis	Prover	9	
433	Dimension order property (DOP), Borel reduts	Theory	6	
434	Disjunction in MMT format to access HOL content	Libraries	3	
435	Disjunctive correctness (DC), two halves	Principle	10	
436	Distributive bilattices	Variety	1	
437	Disturbance	Feature	4	
438	Diverse double-compiling	Schema	1	
439	Diversity, dependence, and independence	Axioms	4	
440	Divine authority	Theses	8	
441	Divine command (DCT), trilemma	Theory	17	1
442	Divine consistency of mathematics	Conjecture	10	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
443	Divine foreknowledge, contra human freedom: Noperator	System	10	
444	Divine priority (DDP), pantheism = complex theism	Doctrine	12	
445	Divine retribution vs. God's purpose of Isaac the Syrian	Conjectures	3	
446	Divine simplicity (DDS), aspectival account, trope sys.	System	18	
447	Uncompatible w freedom, contingent knowledge	Conjectures	14	4
448	Divine truthmaker simplicity, complexity, nominal, Saenz	Conjectures	18	
449	Divine universal causation (DUC): Grant's dual source	Conjecture	4	
450	DUC, determinism, metaphysical contradiction	Conjecture	9	
451	Domain theory of Dana Scott	System	6	
452	Poset: reflexive, antisymmetric, transitive	Definitions	2	1
453	Doxastic logic	System	8	13
454	Drinker's paradox	Paradox	1	
455	Dual world interactions as theory of everything (ToE)	Conjecture	3	
456	Duality corrected for weak by refuting strong	Theorem	7	2
457	Dunn-Belnap four-valued logic, refuted in one sentence	System	12	
458	Semantics, BN4, E4, Routley-Meyer B	Theorems	34	
459	DM4 logic system not bivalent	Theorems	7	
460	Logic for incon. (LFI), underdeterminedness (LFU)	Conjecture	16	
461	Not-bit consist. or vector, but group, ring, module	Theorems	14	6
462	Six-valued logic expansion to coerce bivalency	Conjecture	13	
463	Dyatic semantics on paraconsistent logic <i>CI</i>	Approach	4	
464	Dynamic logic, multi-valued concurrent	Conjecture	4	
465	No count/choice operator, deterministic interior	Conjecture	11	
466	Propositional dynamic logic (PDL), finite-value	System	7	
467	$E=mc^2$	Theorem	3	1
468	EF-axiom: topology and near sets	Axiom	1	
469	Ehrenfeucht-Mostowski indiscernables	Theorem	1	
470	Einstein–Podolsky–Rosen (EPR)	Paradox	1	
471	Einstein relativity via Gödel idealism, arrow of time	Relationship	17	
472	Electrical circuit theory, standard relational composition	Theory	10	
473	Elementary constructive set theory (ECST)/CZF	Definitions	6	
474	Elgot uniform iteration in foundations	Definition	4	
475	End of time, Kripke choice of sequence in IC	Axiom	19	
476	End without end	Paradox	4	

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477	Entanglement vs untanglement: no-no go-go	Conjecture	28	
478	Enumeration reducibility, degrees, topology	Method	1	
479	Epiclesis of Historic Church mapped into mathem. logic	Rendering		
480	Epicurus invoked by Epictetus	Paradox	1	
481	Epimenides the Cretan	Paradox	1	
482	Episcopal church in Historic Church by their definitions	Definitions	10	2
483	Epistemic logic: coalition with perfect recall	Perfect recall	4	3
484	Depth bounded, DBEL extended S5	System	21	
485	Disjunctivism/nyāya vs asym depend/anti-individ	Conjecture	20	8
486	Duty to warn	Conjecture	4	
487	Dynamic public announcement logic (PAL)	System	4	
488	Dynamic reasoning	System	2	
489	Dynamic via axiomatic theory of $K\Box$	Axiom	4	
490	Hilbert substructure	System	5	
491	Knowledge and probability	System	2	
492	Navigation	System	8	
493	Quantifiers over agents	Conjecture	8	12
494	Syntactic epistemic logic (SEL)	Axioms	12	
495	Equational logics, fixed pts, transform extended metric d	System	3	
496	Equisatisfiability and method of forgetting	Theory	5	
497	Erdős-Strauss	Conjecture	1	
498	For $n \geq 2$ and $n \geq 3$	Conjecture	3	
499	Escapism from hell, Mormon afterlife	Conjecture	6	
500	Eternity of Hasker, Plantinga, eternal-temporal (ET)	Doctrine	8	1
501	Ethical reasoning and HOL proof assistant	System	1	
502	Ethics, normative, division of correct principle/action	Demarcation	10	
503	Euathlus, Protagoras, paradox of the court	Paradox	19	
504	Epistemic / normative justifications	System	7	
505	Euclidean comparison theory for size of sets	Theory	18	
506	Euclidean geometry embedded in non Euclidean	Conjecture	3	
507	'everything' means everything	Conjecture	3	
508	Exact sampling in two-variable fragment of FOL	Method	7	
509	Excluded middle as a no-go theorem in reverse math	Conjecture	4	
510	Excluded middle weak laws (WEML), algebraic non sig.	Conjectures	17	

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511	Existential fragments, undefinable, undecidable	Conjecture	7	
512	Extended fluted logic (EFL), transivity, undecidable	Satisfiability	10	
513	Extrema order filter in finite-value Łukasiewicz logic	Theory	19	2
514	"Ex nihilo": some thing from nothing	Conjecture	4	4
515	Faith and works solution, denial of supererogation	Theorem	8	1
516	Falsification by satisfaction function: DeepOpt	Techniaue	13	4
517	Family unit theorem contra refuting uni-gender union	Conjecture	3	1
518	Fan theorem, Brouwer's assumption, lawless seq. axiom	Conjectures	6	
519	Decidable	Conjecture	8	
520	Detached subset DEFU, cont. function DECO	Definitions	3	
521	Fatalism, theological	Argument	13	
522	Beyond fatalism	Dilemma	5	
523	Feferman-Vaught via Morley homogeneous systems	Theorem	5	
524	Fermat sum of squares, Zagier one-sentence Coq proof	Theorem	7	
525	Fibring functions for combining marix logics	Method	5	
526	Fictional logic based on Levi-identity / AGM	System	5	4
527	Filioque as mis-attributed invoking Macedonianism	Conjectures	6	
528	Filter and ultrafilter in order and category theory	Definitions	9	
529	Finitary, algebraizable logic undecidable in Hilbert	Conjectures	6	
530	Finite axiom schemes of FOL of Norman Megill	Axioms	12	
531	Finite direct powers of ω for modal model	System	2	
532	Finite implicational BBP, basic process algebra Kleene *	System	13	
533	Finite model theory, complexity/formal language theory	Conjectures	21	
534	Finite model theory via bisimulation of 3-colorability	Conjecture	3	
535	Finite model theory via Hamiltonicity	Conjecture	5	
536	Finite models in multisorted FOL / clause splitting	System	1	
537	Finite variable logics, learning formulas	System	23	
538	Finitism using one variable for time	Hypothesis	4	6
539	First-order prefix classes by counting, complete classifier	System	14	
540	First-order proofs without syntax	Conjecture	5	
541	First order (FO) checking of geometric graphs	Method	6	
542	First order modal logic (FOML) bundled frag. dec. prob.	Problem	18	
543	FOML nested sequents via reachability rules	System	3	
544	First-order programming (FOP) and MILP	Prover	12	

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545	First-order reasoning by manipulating term algebras	Method	7	
546	First- and second-order logic, shortest refutation	Theory	5	
547	Fitch's knowability	Theorem	2	
548	Fitting's operator in semantics for stream reasoning	Operator	7	
549	Fixed point operator mapping mu-calculus	Paradox	4	
550	Fixed point theorem (as Gödel second incompleteness)	Theorem	7	
551	Fixpoint by relational forward deductive/predictive ppp	Theory	10	
552	Fixpoint operators, 2-categoricals, on corecurs., coinduct.	Operators	7	
553	Fixpoint theory, least/greatest	Theory	15	
554	Flow: ZFU axioms independent of partition principle	Conjecture	15	1
555	Flow sets: choice axiom independ. of partition principle	Conjecture	23	
556	Flow theory	Conjecture	2	
557	FOL disjunctive normal forms (DNF): minimize	Conjecture	14	
558	Continuous induction on real closed fields	FOL Optimizer	2	1
559	FOT first order team logic	System	11	1
560	Fodor weaker/stronger, class	System	1	
561	Folding interpretations and quantifier-free functions	Conjectures	4	
562	Force speed greater than light speed	Principle	5	1
563	Forcing method	Conjecture		3
564	Forcing method via Cohen's model and derivations	Paradoxes	2	
565	Method to change large cardinal strength	Definition	3	
566	Shelah's fundamental proper forcing	Theorem	4	
567	Forgetting theory, propositional	Theory	9	
568	Formal inconsistency enriched with replacement	Conjecture	7	
569	Formalization of AC as equivalents using Coq	Theorems	3	
570	Foundation of mathematics, pure data foundation	Axioms	7	
571	Four color theorem via newly disclosed proposition	Claims	6	
572	Frame conditions, complexity of modal logic recursion	Theorem	6	
573	Frauchiger-Renner conjunctives	Theorem	3	
574	Frauchiger-Renner thought experiment	Paradox	6	
575	Thought quantum model	Paradox	5	
576	Fredkin	Paradox	14	2
577	Free algebra, cylindric logics, atomicity, incompleteness	Conjectures	9	
578	Free choice permission (FCP) in deontic logic	Paradox	1	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
579	Free logic (presupposition) for FOP (implication)	Paradox	1	
580	Free logics with definite descriptions (DD)	Conjectures	26	
581	Free will argument of Maimonides	Conjecture	12	
582	Free will non-existence proof	Paradox	1	
583	Free will choice from Historic Church as proof of God	Theorem		6
584	Free will theorem: Clifton-Kochen-Specker	Refutation	8	2
585	FIN axiom	Theorem	1	
586	MIN axiom	Hypothesis	2	2
587	Frege's inference rule of generalization	Hypothesis	1	
588	Frege's ontological diagram completed, first-order logic	Hypothesis	5	
589	Frege's "not evident to me" God conjecture to Hilbert	Conjecture	2	
590	Frege quantified propositional proofs, bounded depth	Theorem	3	
591	Frege real numbers (Boccuni/Panza consistent rendering)	Theories	19	
592	Frempong conjecture	Rule	2	
593	Frequency dependence of mass	Conjecture	2	
594	Functional dependencies, incomplete data	Theorem	3	1
595	Functions of injection, surjection, bijection	Conjectures	3	3
596	Fusible numbers and Peano arithmetic	Conjecture	16	
597	Fuzzy logic	Systems	25	
598	Fuzzy sets of triangular bases in infinite-valued logic	Theorems	2	
599	Galois theory formalization and lean theorem prover	Method	9	
600	Gametes, contra transvestitie mental state, trans-disorder	Disorder	3	
601	Gender-affirming mutilation by Episcopal Church USA	Endorsement	9	
602	Generalization rule and free/bound variable	Definition	7	
603	Generalized quantifier by injection/removal of fragment	Conjecture	2	
604	Gendered pronouns, CDC, preferred terms, guidelines	Principles	3	
605	Gender ideology	Ideology	8	
606	Gentzen proof of sequent System G-M	Logic	7	2
607	Gettier (justified belief)	System	6	2
608	Gewirth principle of generic consistency PGC, HOL/Isab	Principle/Prover	11	
609	Fraudulent proof of PGC by Isabelle/HOL	Proof	5	
610	GHZ (Greenberger-Horne-Zeilinger)	Problem	6	
611	Gleason	Experiments	1	
612	Global trade analy. proj (GTAP); EU farm model (EFM)	Model	26	

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613	Gnosticism as a religion from its duality of evil	Conjecture	5	
614	Gobbay's separation	Theorem	1	
615	God and abstract objects, figuralism, free logics	Conjectures	9	
616	God, four names on white horse in Rev 19.11-16	Confirmation		10
617	God game to prove axiom of choice as math of free will	Conjecture	4	
618	God is a higher power	Conjecture	9	
619	God is not a person, notion	Conjecture	3	
620	God is not a person, shortest	Conjecture	3	2
621	God proof in one in one variable possibly-non-contingent	Proof	5	2
622	God's gender as non-binarity	Logic	31	
623	God's beliefs as contingent on future	Conjectures	18	
624	God's will, antecedent, consequent, two wills	Conjecture	13	
625	Gödel algebra: BL-, ML-, MG-	System	8	
626	Gödel class with identity un-solvable	Theorem	17	
627	Gödel compactness	Conjecture	10	1
628	Gödel completeness, short	Theorem	6	2
629	Shorter	Theorem	2	
630	Theorem, for unrestricted first-order logic	Theorem	2	
631	Gödel Dialectica logic	Principles	7	
632	Principles via doctrines: Skolemization; Markov	Axioms	20	
633	Gödel first incompleteness	Theorem	4	
634	Gödel 4-valued logic, non-bivalent	System	12	
635	Gödel GL, GLS logics; first, second incompleteness	Theorems	5	
636	Gödel incompleteness	Theorem	4	
637	Briefest refutation of first and second theorems	Theorems	3	
638	FOL	Equations	14	1
639	I on logics of Q , Q^+ and PA^- , $L(PA^-)$	Limits	7	
640	Kripke frames on direct self-reference	Conjectures	4	
641	MATR machine-discovered proofs of I and II	Automation	5	
642	Theorem, computer assisted proofs	Contradictions	14	1
643	Shortest	Assistant tools	2	2
644	Via Löb counter-examples	Refutation	7	
645	Well-founded jump hierarchies	Refutation	9	2
646	With hidden answers	Refutation	4	

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647	Gödel-justification logic	Refutation	7	
648	Subsets	Refutation	7	2
649	Gödel-Löb	Models	2	
650	Gödel-McKinsey-Tarski translation of IPC	Axiom	1	
651	/ Blok-Esakia for Heyting-Lewis implication	Axioms	33	
652	Gödel modal theory with truth constants	System	7	
653	Gödel pairing function	Theorem	1	
654	Gödel recursion	Axiom	3	1
655	Gödel-Scott on God	Theorem	11	4
656	Godlike computer: Benz Müller's nightmare	Theorem schema	5	2
657	Gödel logic T, circular version CT	System	5	
658	God's ethics as norms of divine agency	Conjectures	10	2
659	Goldbach's conjectures	Proof	2	
660	Chinese remainder theorem	Conjectures	8	2
661	Inconsistency of arithmetic	Conjecture	2	
662	Strong conjecture	Conjecture	6	
663	Succession gaps (GSG) on twin primes	Conjecture	5	1
664	Goldblatt-Thomason with back/forth duality	Conjecture	6	
665	Goodstein (with Ackermannian)	Theorem	3	
666	Goodstein	Theorem	8	
667	Graded modal logic	Theorem	3	
668	Graph neural networks encoding geometric concepts	Explainers	13	
669	Graph neural reasoning	Frame classes	4	2
670	Graph programs in GP2 with Hoare first-order logic	Conjectures	71	
671	Grassmannian discovery	Conjecture	4	
672	Greach-Kaplan sentence for de rebus belief	Puzzle	2	
673	Grids, rectangular without extra non-unitary relations	Paradox	4	
674	Grills in topology	Axioms	3	
675	Grzegorzczuk's 1967 axiom	Axiom	1	1
676	Group theory, McCune single axiom: ZX-calculus	Theory	5	
677	Group theory, model companionship, continuum problem	Conjectures	25	
678	Grzegorzczuk, Whitehead points, regioned space theory	Reconciliation	5	
679	Guarded negation fragment (GNFO) universal logic	Theory	13	
680	Guided neural synthesis, example / counterexample	Theory	4	

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681	Gurevich's nightmare: inductive inference	Legend	7	
682	Habermas communication theory, Aristototele's rhetoric	Theory	8	
683	Hadamard gate	Algorithms	4	
684	Hahn-Banach	Theory	3	1
685	Hall	Theorem	5	
686	Hamiltonian quaternion	Effect	1	
687	Hamilton quaternion via Gauss, Rodrigues	Definition	3	
688	Hamilton's quaternion bivalent multiplication	Operation	2	
689	Hamilton's quaternion / triplet multiplication	Definition	1	
690	Hamkins' embeddings in sets	Conjecture	2	
691	Hammer for supervisor conditions, BS(LRA)	Conjectures	7	
692	Hamming distance encoding, binarized neural net (BNN)	Framework	9	
693	Hard problem: analysis, reconstruct, eval., arg (ARENA)	Problem	5	
694	Hardy fields, two maximal as equal via filling gaps	Theorem	5	
695	Hardy's generalized paradox	Theorem	1	
696	Hartshorne's ontological proof	Conjectures	15	
697	Healthcare, reforming America's by choice/competition	Conjectures	4	1
698	Hegel's dialectic	Conjecture	6	
699	Heider inspired international relations theory	Method	6	3
700	Heisenberg uncertainty principle	Theory	5	1
701	Conjecture	Axiom	2	
702	Replacement theorem	Principle	1	
703	Take a picture of an electron	Axiom	2	3
704	Hempel's raven	Principle	6	2
705	Henkin branching quantifier and five derivative quantifiers	Quantifiers	11	
706	Henkin cyclic logic (HCL), axiom if $\vdash \phi$ then $\vdash \Box \phi$	Logic	15	
707	Henkin cylindric algebra and FOL applications	Paradox	6	
708	Permutation model nonrepresentable	Axioms	8	6
709	Herbrand functional interpretation, other disjunction	Assertion	1	
710	Quantified theorems (12 rules as rites of passage)	Theorems	24	
711	Semantics	Formulation	2	
712	Hereditarily irresolvable space by McKinsey's axiom	Conjecture	5	1
713	Heyting algebra (HA)	System	6	
714	Heyting-Brouwer varieties, Kuznetsov's problem	Conjecture	10	

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715	Heyting-Brouwer intuitionistic logic	Algebra	21	
716	Heyting distributive lattices / binary operator	Systems	9	1
717	Heyting logic	Conjecture	1	
718	Hoop and pocrim with Prover9/Mace8	Idempotency	2	1
719	Σ_1 -provability logic of HA by GL (Löb necessit.)	System	14	
720	Hexagons of opposition for statistical modalities	Theorems	14	
721	Higher-order mathematical induction	Conjectures	9	1
722	Higher power as God due to virtue	Definitions	2	2
723	Hilbert H10 undecidable: extended to Q in R	Principle	2	1
724	Generalization	Problem	6	4
725	Grand hotel	System	1	
726	Kolmogorov intuitionistic logic	Paradox	1	
727	Linear Diophantine equation, no logical solution	Conjecture	12	
728	Logic system HG	Systems	9	
729	Program collapse as variation on Gödelian theme	Conjecture	7	
730	Terium non datur, sequent calculii, proof theory	Theory	20	
731	Theorem, first epsilon, quantifier shift	System	7	
732	Hindman's and thin set versions of Ramsey	Theorems	7	
733	Hindu canonical syllogism $((H=S) \& (p \rightarrow H)) \rightarrow (p \rightarrow S)$	Syllogism		2
734	Historic Church as pure religion, gnosticism as impure	Theory		2
735	Hiž warning, incompleteness, axiom not via translation	Conjectures	9	
736	Hoare logic, relational (RHL), alignment, rule CONSEQ	System	7	
737	HOL rejection of Lowe's modal ontology	Logics	7	
738	HOL superposition on λ -free logics	Logics	6	
739	Holy Ghost as author of both "harmony and division"	Conjecture	4	
740	Holy Trinity (1 God in 3 Persons, 3 Persons in 1 God)	Definition		1
741	Homogeneous σ -space, zero-dimensional	Theory	10	
742	Homomorphisms reduced from injective homomorphisms	Graphs	5	
743	Homosexual theology taught by Pope Francis	Assertions	11	
744	Homosexuality by progeny	Evaluation	8	
745	Horty's puzzles in stit logic	Argument	16	4
746	How computers must think	Requirements	1	1
747	Hrushovski (<i>now</i> confirms Lachlan and Zil'ber)	Corollaries	3	3
748	Huemer's confirmation theory for induction	Construction	2	

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749	Huge natural deduction proofs redundant in $M \supset$	Conjecture	3	
750	Huhn 2-distributive lattice identity	Proposal	3	2
751	Hutzelmeyer-Kleene logics	System	13	
752	Hybrid systems via predicate transform semantics	Formula	1	
753	Hydraulic forgiveness (confirmed)	Assistant	5	
754	Hydraulic corollary of peace	Theorem	6	2
755	Hypercomplex number systems, anticommutative	Corollary	4	
756	Hyperdoctrine (Lawverve, Seely, Beck), adjointness	Axioms	5	
757	Hyperintensionality	Analysis	17	3
758	Hyperliveness verification	Conjecture	3	
759	Hyperreal line, semi-constructive approach	Approach	3	
760	Hypersequent calculus for modal logic S5	System	2	
761	Ideals	System	2	
762	Identical events	Paradox	3	1
763	Ignorance of first choice	Definition	4	
764	Illocutionary logic via speech acts	System	14	6
765	Imaginary numbers	System	3	
766	Imperative logic	Definition	2	
767	Jørgensen's dilemma	Dilemma	1	4
768	Implication atoms as distinguishing features of M8/VL4	Theorems		
769	Implication combination forms from $(p > r) > r$	System	3	4
770	Implicit logic (IL) to explicit logic (EL)	Theorems	3	16
771	Impossible worlds: none necessary; all possible	Translation	7	
772	Impredicative- to predictative-type system, translations	Translations	8	
773	Impredicativity, trees with gap condition: ordinal analysis	Conjectures	14	
774	Inclusion logic, dependence logic, independence logic	Definitions	4	4
775	Probabilistic with extensions on inclusion logic	System	4	
776	Incompletely predictable problems: zeta and seive	Theorem	1	
777	Incompleteness on decidable logics Q,PA,G,H, AS	Limit	11	
778	Inconsistency lemmas, algebraic logic	Conjectures	3	
779	Inconsistent theory	Formulas	3	
780	Contradiction implies not, classical fuzzy paradox	Conjecture	7	
781	Extending the monad to a triad	Theorem	6	2
782	Kunen inconsistency	Formulas	10	2

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
783	Independence-friendly logic (Kreiselization)	Theorem	1	1
784	In-determinism, religious, neutrality of God	Conjecture	4	
785	Indicative conditionals	System	2	
786	Indiscernibles in saturated free algebras	Encyclopedia	5	1
787	Individual-decision making conflict score on refugees	Theory	2	
788	Induction: Black raven (swan); Kripkenstein	Equation	2	
789	Intuitionistic logic Martin-Löf type theory	System	3	
790	New riddle	Axiom	4	
791	Induction by numerical identity of $(-1 \leq C \leq 1) = (C \leq 1)$	Definition	4	2
792	Induction, coinduction: standard and mutual	Paradox	2	
793	Transfinite	System	30	2
794	Induction in Elem. Arith. for reduction property	System	4	
795	Induction models, reduced/equivalent proof conversions	System	3	
796	Induction, pessimistic meta	Conjecture	2	
797	Induction on complexity of formula and Vietoris functor	System	3	
798	Inequality: "arbitrarily" vs "sufficiently" large	Formulas	2	
799	Inequalities, strict with and without probability	Conjecture	2	1
800	Infallible scripture to Eucharist, Episcopate for salvation	Requirements	21	2
801	Infinite set theory	Definitions	3	1
802	Infinite choice, prob. distr, open prob. "real" Hilbert hotel	Process	5	
803	Infinite-state system: directly reached; over-approximates	System	4	
804	Infinity, broad, generative principles, nat-inductive axiom	System	19	
805	Infinity unbounded without cardinal number set theoryr	Theory	11	
806	Information theory: mutual information	Theorem	2	
807	Innovation contest in two sequential stages	Definition	4	
808	Inquisitive modal logic via flatness grade	Definition	2	
809	Insanity repeating mistake expecting different results	Conjecture	2	
810	Insitutional logic, theory of change, CGIAR research	Model	8	
811	Intensional logic, Bealer's necessity, axiom S5'	Theory	5	
812	Intensional logic, Bealer's substitutivity, axiom S5'	Theory	13	1
813	Intensional \downarrow -operator/ultra filters in Isabelle/IHOML	System	2	
814	Interaction combinators	Theory	6	
815	Interior albegra cond./consequence relation completeness	System	10	
816	Internal logic of extensive restriction categories	Theorems	7	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
817	Interpersonal interactions	Duality	3	
818	Interpolation, FO, from propositional by residuation	Extension	6	7
819	Interpretability logic	Method	7	
820	Logics (1 of 5)	Definitions	3	
821	Logics (2 of 5) modal IL	Definitions	5	
822	Logics (3 of 5) modal IL	Axioms	6	
823	Logics (4 of 5) modal IL equivalents	Lemma	4	1
824	Logics (5 of 5) conditions R, R*	Principles	7	
825	Logics ILM, TOL, Vaught and adjunctive set	System	3	
826	Modal completeness with persistence in ILP	Principle	5	
827	Modal for reasonable arithmetical theories	Relation	3	
828	Veltman semantics from ILM	System	17	
829	Weak systems of arithmetic	Principles	2	
830	Interpretation function, affirming contagion	Conjecture	6	
831	Interval for model checking	Systems	10	
832	Intuitionism, continuity axiom, no excluded middle	Refutation	12	
833	Intuitionistic belief logic IEL ⁻ co-reflection, necessitation	System	4	
834	Extensional realizability	Theory	27	
835	Temporal logics in topological dynamics	Theory	2	
836	Intuitionistic fuzzy decisions in Dempster-Shafer	System	3	
837	Logic, cut via nested sequents (IF)	Comparison	2	
838	Intuitionistic claimed rules from predicate logic	Theorems	18	
839	Intuitionistic logic (IL) from double-negation (DNP)	Principle	24	
840	Intuitionistic logic from HYPE, KF, and PKF	Theory	5	
841	Modal as extended WZ logic	System	11	
842	Intuitionistic mathematics and logic (FIM)	System	15	
843	Intuitionistic, modal monadic by linear logic: Casari	System	22	
844	Modal logic, intermediate logic, team semantics	System	40	
845	Intuitionistic set theory, premise rule	System	9	
846	Zermelo-Fraenkel set theory (IZF), (CZF)	System	3	
847	Intuitionistic type theory division theorem	Theory	4	
848	Identity type	Conjectures	11	
849	Invertibility, inductive sequent sys, L-Framework, Maude	Approach	8	1
850	Irrelevant propositions, Burley's paradox	Rule	6	

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851	Isabelle/HOL interactive tools	Axioms	10	
852	Metalogic, transivity, equivalence, lambda cal.	Prover	8	
853	Prover assistant	Prover	14	3
854	verifier SeCaV	Verifier	6	
855	ISO 9001:2002 automotive production by QMS model	Model	4	
856	Isomorphism test on graphs, excluded topol. subgraphs	Theorem	3	
857	Jaccard index	System	1	
858	Jaccard similarity for graph, neaurial networks logic	System	11	
859	Jaina logic	System	12	2
860	Jensen polynomial partition roots for Riemann	Statistic	3	
861	Join-prime in lattice theory	Hypothesis	1	
862	Join-semilattices, quantifier-free logic	Conjectures	10	
863	Jonsson positive logic: retromorphism	Definition	4	
864	Jordon curve	System	3	
865	Jordon decomposition via Feferman mu	Theorem	25	
866	Judaic argumenation theory, propositional axioms	Theory	32	11
867	Justification based reasoning for conflict resolution	Theorem	2	
868	Justification logics, logic of proofs (LP)	Theory	18	
869	K-categories, simple valuations	Conjecture	2	
870	k -triangular set function logic	Definition	3	
871	Kalām cosmological argument and variations	Definition	23	2
872	Kan fibrations, effective in simplicial sets	Conjectures	7	1
873	Kanban cell logic (KcL)	Logics	4	4
874	Kanban cell neuron maps whole brain	Statistics		
875	Kanban cell neuron model	Definitions		2
876	Kant: falsity of syllogistic figures	Model	242	14
877	Kantian ethics by formula of universal law (FUL)	Implementation	8	
878	Karma implied by God and converse	Conjecture	9	
879	Karma implies non-existence of God	Conjecture	5	
880	Karpenko system $K\text{-}\mathbb{L}4$	Theorems	8	2
881	Keisler measure in NIP theory	System $K\text{-}\mathbb{L}4$	6	8
882	Ultraproduct	Formula	1	
883	Kent algebras on rough set concept analysis	Construction	7	1
884	Kleene algebra, free with domain (binary relations)	Algebra	5	

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885	Idempotent semiring, embedded Kozen-Tiuryn	Definition	5	
886	Inequality of $(x \wedge \sim x) \leq (y \vee \sim y)$	Theory	3	
887	Lattices, reversible	Conjecture	2	
888	Skip free guarded algebra, imperative programs	System	10	
889	Knowability logics and principle	Principle	15	
890	Paradox and anti-realism	Paradox	18	1
891	Knower paradoxes, untyped solutions by Löb's theorem	Paradox	2	
892	Knowledge, borrowing, sharing in the Incarnation	Theorems	8	2
893	Knowledge for God the Father, God the Son, and man	Theorem	4	4
894	Knowledge, self- (SK), false- versus mis-representation	Conjecture	22	2
895	Knowledge logic, action: theory of fairness / bias	Logic	4	
896	KPT interpolation via limitation	Form	3	
897	Kracht's restricted world quantifiers	Conjectures	23	
898	Kramers-Kronig relation	Functions	15	
899	Kripke frame definability in predicate modal logic	Relation	1	
900	homomorphism function as p-morphism of UVO	Definition	7	
901	logics, FO modal linear in restricted languages	Definitions	9	
902	necessary identities	Definitions	17	
903	set theory, Kripke-Platek	Theory	15	
904	Via BAOs with $\diamond \perp = \perp$	Definitions	10	
905	Kripke-Feferman (KF), partial (PKF), Reinhardt, Tait	Theory	8	
906	Kripke-Platek and CZF	Theory	10	
907	Kripke-Platek power set theory	Theory	10	
908	Kripke-Platek set theory and Caesian products proof	Theory	4	
909	Kripke-Platek set theory on intuitionistic logic (IL)	System	18	
910	Kuratowski def of ordered pair to deny wholeness axioms	Lemma	6	
911	Kuratowski-Zorn lemma (Zorn's lemma), sets	Theory	1	
912	Kuznetsov, A.V., modal systems, structures	Theory	13	
913	Labelled calculi for QMLs with definite description	Lemma	2	
914	Lachlan problem solution	System	8	
915	Lagrange's theorem, Hilbert 10th problem, prover Coq	Problem	12	
916	Lambda calculus, bilateral two-sorted type	System	4	
917	Lambda λ -calculus and LISP	Theorem	12	
918	Lambek calculus division	System	7	1

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919	relational models with intersection and constants	Sytem	5	
920	Landau-Siegel zero, discrete mean estimates	Conjecture	6	
921	Lara: unified language for linear / relational algebra	Operations	9	
922	Lash as fork of Stallax	Provers	12	
923	Lattice, directed quadrilateral by edges and vertices alone	Conjectures	1	1
924	Lattice effect algebra	Language	3	
925	Lattice, orthomodular, residuated, negative translation	Conjectures	29	
926	Lattice recognizability with congruence preservation	Conjecture	5	
927	Lattice, residuated, strictly join irreducible varieties	Theorems	7	
928	Laudbouw econ. inst. (LEI) agri model, MAGNET,SERA	Models	25	2
929	Lean theorem prover from Microsoft	Conjecture	1	
930	Learning, deep reinforcement in HOL4/Robinson	System	3	
931	Lebesgue spaces	Axioms	3	
932	Lesniewski's ontology, principle of individuation	Ontology	5	
933	Liebniz (or Avicenna) contingency argument for God	Proof	15	
934	Leibniz' indiscernibility of identicals as equivalent	Conjecture	1	
935	Identity of indiscernibles	Laws	2	
936	Leibniz' ontological proof of God	Theorem	1	
937	Briefest known	Proof	1	1
938	Liebnizian logic of possible laws and hence change logic	System	8	4
939	Lemma flow diagram	Proof	7	
940	Lemmon D	Proof	5	
941	Length contraction and theory of relativity	Axiom	1	
942	Leopardi's endless edge	Experiment	3	
943	Lésniewski's epsilon in modal logic KTB	Axioms	4	
944	van Leunen deformation field	Conjecture	4	
945	Lattice logic, weak modular	Conjecture	4	
946	Lexicographic logic for preference representation	System	7	1
947	Liar	Theorem	2	
948	Liar paradox as the fault of classical logical	Conjectures	5	
949	Liar's antinomy	Paradox	5	
950	Liar's antinomy and liar as a paradox	Conjectures	24	
951	Liar's paradox in one variable	Conjectures	23	
952	New modal rendition	Paradox	13	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
953	Prior rendition	Paradox	7	
954	Saul Kripke rendition	Paradox	4	
955	Libre office writer replacement by MS office word	Experiment		
956	Lie algebra, Lean's Mathlib	Formalization	7	
957	Lifted inference contradicted by rule of exclusion	Conjectures	13	
958	Lifting countable to uncountable arithmetic in RM	Paradox	1	
959	Lifting QBF resolution calculi to DQBF	Axiom	3	
960	Lindenbaum's lemma, completeness of metalogic AS1	Theorems	5	
961	Lindenbaum-Tarski theory, quotient consequence relation	Method	19	
962	Line through a circle	Conjectures	5	
963	Linear algebra	Conjecture	8	
964	Programming: Karush-Kuhn-Tucker	Theorems	4	
965	Temporal logic	Conditions	4	
966	Temporal logic, Hyper linear (Hyper TLL)	System	2	
967	Linear logic, first order, reduction	Principle	8	1
968	Linear logic, secd. ord., monadic, atomic Boolean algebra	Theory	3	
969	Linear order axiomusing lifted inference	Conjectures	5	
970	Linear temporal logic, robust (rLTL), da Costa algebra	System	6	
971	Lindström theorems on fragments of FOL	System	6	
972	Liouville	Theorem	7	
973	Lipschitz horizontal vector fields	Theorem	2	1
974	Liu-Shelah theorem as Magidor analog and subsequents	Theorem	7	
975	Löb original, corrected	Conjecture	4	
976	Löb with Gödel incompleteness	Theorem	1	1
977	Lobachevskii non Euclidean geometry	Theorems	3	
978	Logic in primary education	Lesson		
979	Logic of functional dependence (LFD) via Craig interpol.	System	12	
980	Logic programming, relation based, spatial data Geolog	System	20	
981	Logical framework (LF), validity for reasoning	System	12	
982	Logical geometry, bit code, meet OG/IG, sensitivity	Conjectures	8	
983	Logical neural networks (LNNs), IBM weighted	Framework	18	
984	Logical syntax of IT architectures	Conditions	7	1
985	of Universal IT architecture	Ensemble	4	
986	LogiKEY, HOL, undecidability of Isabelle/HOL	Method	38	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
987	Lonely runner	Consistency	1	1
988	Łoś-Tarski preservation theorem	Theorem	7	
989	LTL standard modal, reactive, unification, frames	Logics	6	
990	Löwenheim–Skolem as strong rendition	Conjecture	8	1
991	Löwenheim–Skolem, Hilbert style metatheorem	Theorem	4	
992	Löwenheim–Skolem, shortest refutation	Theorem	14	
993	Luce model (general)	Metatheorem	4	
994	Łukasiewicz alleged objection to $(\diamond p \& \diamond q) \rightarrow \diamond(p \& q)$	Objection	15	
995	Implicative rejection (refutation) by substitution	Refutations	3	
996	Infinite, multi-valued (MV), strict coherence	Conjectures	46	6
997	Infinite valued, sentential logic, axiom A2	Conjectures	48	
998	Modal Ł4	Allegation	6	1
999	Modal, non axiomatizability	Conjectures	6	
1000	Quaternary values 0-3, implied relations	Tabulation		
1001	Three-valued logic over the chain $C3 = \{0, \frac{1}{2}, 1\}$	Conjectures	13	
1002	$\forall \text{Ł4}$ fixes modal logic (Molle) to be bivalent	Theorems	7	
1003	Lusin's separation	Objections	8	1
1004	Lyndon interpolation and GL	Theorem	2	
1005	Majorana's 'root'	Interpolation	8	1
1006	Malice and Alice	Equations	9	
1007	Man implying a higher power to imply God	Conjecture	2	
1008	Maoism antagonistic and non-antagonistic contradictions	Theory	13	
1009	Mapping for theism(s) into universal logic of $\forall \text{Ł4}$	Definitions	14	
1010	Markov chain: 2-variable vs linear temporal logic	Puzzle	7	
1011	Simulation, direct numerical	Analysis	3	
1012	Martin's axiom as independent to continuum hypth., ZFC	Axiom	13	
1013	Karl Marx's mechanization causing profit rate to fall	Conjecture	7	
1014	Math tea argument, Hamkins' pointwise-definable exten.	Conjecture	2	
1015	Matita prover superposition	System	6	
1016	MaxSAT prover with complexity approach	Algorithms	3	
1017	McKinney-Tarski third rule for S4 to S5, Baire algebra	Conjectures	18	0
1018	Mealy machine guided-black box checking	Verifier	5	2
1019	Meet implication logic, modal	System	42	
1020	Meinongian theism, non-existent objects	Principles	13	

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1021	Meredith's logic system	System	9	
1022	Mereology, behavioral	Prover	4	
1023	Mereotopology, distributive	System	2	
1024	Metamath only rule of inference as substitution	Relations	9	
1025	Metaphysics, gods of science, exisence	Conjecture	2	
1026	Metaphysics, higher-, lower-order, quantified modal logic	Argument	6	
1027	Metaphysics: "Something rather than nothing"	Prover	3	
1028	Meth8/VL4 as proof reading tool for orthologies in cones	Checker	10	
1029	Coercing variables to keep 16-valued proof tables	Method		
1030	How it works, and why this is important.	Theory	6	
1031	Self-proof in one variable	Theorems		16
1032	Versus Prover9 via Lifshitz	Theorem	2	
1033	Meyer-Scott axiom, lambda algebra, calculus, and logic	Axioms	38	
1034	Middle knowledge in predestination	Conjectures	9	
1035	Mill's five forms of induction	Rules	16	
1036	Milner's coninductive proof with modulo bisimilarity	Conjectures	16	
1037	Milner's expansion law, Kleene star / process algebra	Algebra	9	
1038	Minimal hierarchy	Conjecture	4	
1039	Minimalist foundation (MF) via Church's thesis	Disambiguation	13	
1040	Minimization deduction system with MILP	Conjecture	4	
1041	Minkowski plane, classical set of points/cycles	System	1	
1042	Mitzvot dilemma	Conjecture	18	
1043	Model expansion (MX) for graph-3 coloring	Solutions	3	
1044	Modal aleatoric calculus	Theorems	2	1
1045	Coalgebraic geometric logic	System	6	
1046	Collapse	Conjecture	7	
1047	Modal algebra, Malgari, Heyting-, interior-, prov.-logics	Algebra	12	
1048	Modal and quantified operators as equivalent, bivalent	Confirmation	1	9
1049	Modal fallacy, future contingents, bivalency	Theory	26	
1050	Modal logics: 2; 3; 4; B; D; E; K; M; T; and W	System	2	
1051	Bi-intuitionistic	System	5	
1052	Codi, based on one propositional variable	Conjectures	17	
1053	Ecumenical modal logic	System	7	
1054	Ecumenical Prawitz, LE, separa., stoup, polarities	System	13	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1055	Fallacy conjecture (prob. of future contingents)	Conjecture	9	
1056	Fractional modal logic, Dugundji's theorem	Theorem	5	
1057	GL2	Systems	2	8
1058	Non-bivalent	Logic	9	
1059	Not bivalent, confirming VŁ4 is bivalent	Refutation	8	
1060	Residuated and non-distributive logic	Logic	8	1
1061	Stepwise removal via stepwise update modality	System	28	
1062	Supervised learning	Logic	7	
1063	Three-valued logic from four-valued perspective	System	29	
1064	With intersection, completeness proof of N	System	3	
1065	Without reflexivity and artificial Kripke worlds	Theory	5	
1066	Modal operators on rings of continuous functions	System	11	
1067	Modal paradox, parts, ctr-parts, points, ctr-points	Conjectures	21	2
1068	Paradoxes, all, modal logic EQ-45	Systems	12	2
1069	Modal tetravalent logic, natural deduct., cut-free sequent	System	20	
1070	Modality, metaphysical, essentialism, S5-denying method	Conjectures	46	
1071	Model classes, logicity	Conjectures	12	
1072	Model-companionship, generic-absoluteness, -invariance	Theory	9	
1073	Model, incremental recast as mechanized overloading	Conjecture	6	
1074	Model of agribusiness innovation platform (AIP)	Model	3	
1075	Model of food industry of India and ICRISAT	Model	4	
1076	Model of how the army runs	Model	37	
1077	Model theory, continuous, for filter and ultrafilter	Theory	4	2
1078	Model theory = univ. algebra + mathematical logic	Method	4	
1079	Model theory, modal, maximality principle, actuality opr.	Theory	6	
1080	Model theory, residual rings, Peano, prime power case	Theory	11	
1081	Model theory, variable and guarded modal fragments	Language	1	
1082	Model, uncountable, geometric theory of fields	Theory	8	
1083	Modelling human/org. behavior in military simulation	Model	9	
1084	Modeloid, Wagner-Preston / Scott categorical axiom	Conjectures	6	
1085	Modeloids, categorical axiomization	System	14	
1086	Modern modal logic systems (2): JYB4 and AR4	Theorem	5	3
1087	Modified divine command	Axioms	12	17
1088	Modus inversus as a bi-valent connective	Theory	4	1

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1089	Modus ponens consequent as conditional	Theorem	1	1
1090	Modus ponens necessary consequent, affirmed in tollens	Conjecture	2	
1091	Molinism: dependence response and explanatory loops	Conjectures	9	
1092	Molinism "suggestion" via responsibility and original sin	Conjecture	19	
1093	Molle-1.0@sourceforge.net free modal logic street prover	Proof assistant		
1094	Molyneux's problem	Rule	3	1
1095	Monads	Definition	4	
1096	Semifree with algebraic presentation	Lemma	12	2
1097	MONASH-MRF gov't finance block, Australia	Model	5	
1098	Monoids, commutative, subresiduated lattice ordered	Conjecures	21	
1099	Monoids, finite, as all Ramsey monoids	Conjecture	12	
1100	Monomial, linear integer-constrants of NP decision proc.	Procedure	4	
1101	Monotheism, one God	Theorem	3	1
1102	Monolithic groups in nilpotent groups	Problem	1	
1103	Montague's quantification in English	Conjecture	23	
1104	Moore's paradox	Conjecture	2	
1105	Moral absolutism impossible	Paradox	2	1
1106	Relativity of moral absolutism	Conjecture	3	1
1107	Moral luck, theological	Problem	5	
1108	Most as quantifier	Conjecture	2	1
1109	Murphy assumptions: distributive grace; abject greatness	Assumptions	4	
1110	multiPOver in rule reasoning	Prover	18	
1111	Multi-utility representation of distributed networks	Representation	11	
1112	Multivariable (MV) algebra, definitions	Definitions	5	
1113	Least-greatest fixed-point (Knaster-Tarski theory)	Conjectures	20	2
1114	Mundici tutorial, MV-algebras, first properties	Definitions	13	
1115	Multiverse logic, preliminary steps	Logic	2	
1116	Naive scale invariance for 't Hooft world hologram	Conjecture	2	
1117	NAND, Sheffer stroke, alternative denial, truth table	Symmetry		
1118	Natural deduction logic, non-classical, 6 deduction types	System	6	
1119	Natural deduction system, typed, prob. computations	System	11	2
1120	Natural logic: monotonicity	Conjecture	1	
1121	Nested relational query, implicit def./specification	Conjecture	12	
1122	Nāya in Hindu and Buddhist theology	Conjecture	17	

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1123	Necessary existence proofs for existence of God	Approach	6	2
1124	Necessitation: K,T,4,B,D,5; <i>D,M,S4,B,S5</i>	Conjecture	5	
1125	Necessitation rule $p \rightarrow \Box p$ into bivalent, modal $\Diamond(p \rightarrow \Box p)$	Resuscitation	12	
1126	Necessity causing contingency	Arguments	5	
1127	Neighborhood function principle (NFP), N-reductionn	Principle	31	
1128	Nelson (David) algebras, alt. axiom. present. via Prover9	System	24	
1129	Nelson (Leonard) criticism of epistemology	Axiom	10	7
1130	Negative mass	System	2	2
1131	Nested sequents, modal axioms in domains, quantified	Logic	9	
1132	Neural networks: Barrier certification	Method	3	
1133	Parallel fairness certification	Conjecture	6	
1134	von Neuman-Bernays-Gödel [NBG]	Definition	2	
1135	Neutral letter, FOL w alternation, Straubing central conj	Conjectures	3	
1136	Neutrosophic logic	Theory	2	3
1137	Dezert-Smarandache	Theorems	5	
1138	Generalized Hegel's dialectics	Theory	2	
1139	Generalized intuitionistic, fuzzy logic	Method	4	
1140	Geometry of Smarandache / Lin Fan Mao	System	2	
1141	MANET attack genetics	Definition	2	
1142	Negated adjectival phrases	Algorithm	1	
1143	Neutrosophic logic: theory of everything	Lattices	2	
1144	Neutrosophic sets	Theorem	2	
1145	Neutrosophic set containing another such set	Properties	3	
1146	Neutrosophy with dependent probability	Definition	3	
1147	Pseudo-trinitarian human consciousness	Definitions	3	2
1148	Quinary	Model	2	
1149	Retract crisp set topology	System	2	
1150	Smarandache multi-space theory	Propositions	5	
1151	Soft lattice theory	System	5	
1152	Unification of other logics	Theorem	2	
1153	Values as 1, 0, between 0 and 1	Axioms / Rules	2	
1154	Vector space on $\{-0, 0, 0 < p < 1, 1, 1+\}$	Designated logic	2	
1155	Newcomb paradox	Paradox	3	
1156	Langan adornment resolution	Paradox	8	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1157	Martin Gardner, another no-go	Paradox	5	
1158	Nomological-explanatory solution (NES), induction	Logic	6	1
1159	No gratuitous evil argument, polemic objections	Conjectures	24	
1160	Non-axiomatic term logic (NATL), cognitive symbolic	Logic	12	2
1161	Non-clausal classes, polynomial, in many-valued logic	Conjectures	13	
1162	Noncontingency variants	Paradox	2	
1163	Non-deterministic logic	Operator	5	
1164	Non-male priests in Historic Church, shorter, not modal	Conjectures	7	4
1165	Non-male priests in Historic Church, shortest	Theorem	7	4
1166	Nord Stream pipeline, sabateur by mathematical logic	Conjectures	12	
1167	"Not all necess. truths are tauts" (all poss. truths are tauts)	Folklore	5	
1168	Nothing does not imply a non existent null set	Completeness	8	
1169	Nowhere centered ideal of counted power set as an ideal	Theory	5	
1170	Nucleosynthesis	Definition	7	
1171	Number systems R,A,Q: incompleteness, undecidability	System	31	
1172	Object theory logic, principia logico-methaphysica	System	39	
1173	Old logic system (OLS) of Leon, self-reference	System	6	
1174	ω -consistency and axiom of pre-linearity	Conjectures	5	
1175	Omega rule (Ω -rule), ω -rule, automated infinite proofs	Rule	6	
1176	OMG UML, obj mgmt grp, unified model language	Infrastructure	16	
1177	One-dimensionl fragment over words and trees	System	9	
1178	One dimensional subgroups in non-Abelian p-adic groups	Theorem	24	
1179	One divine nature	Definition	6	
1180	Ontological arguments and derived formalizations	Conjectures	7	
1181	Ontology engineering for complete-debug problems	Definitions	4	
1182	Ontology-mediated query (OMQ); Datalog (MDDLLog)	Conjectures	8	
1183	Ontotheological error	Conjecture	8	1
1184	Open theism	Conjectures	25	
1185	Open-universe causal reasoning	Conjecture	6	
1186	Operators, probabilistic, as extenstion to classical logic	Conjectures	7	
1187	Optimization for complex number programming	Conjecture	2	
1188	Order theory, computation of denumerability	System	14	
1189	Ordinal notation via simultaneous definition	Conjecture	1	
1190	Ordinal Turing machine (OTM) on set theory	Conjecture	5	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1191	Orthologic epistemic modals on $p \wedge \diamond \neg p$ as not contrary	Theory	8	
1192	Orthomodular law	Conjectures	10	
1193	Paraortho posets for quantum structures	Conjectures	8	
1194	Outcome logic system (OL)	System	7	
1195	Overlap algebra on constructive Boolean algebra	Theorem	1	
1196	OWL web ontology language predicting score for axioms	Model	7	
1197	$P=NP$; 3-SAT	Conjecture	4	
1198	Satisfiability via claimed Boolean rules	Conjectures	5	
1199	3SAT for Karp's cnf into split clauses	Conjectures	4	
1200	$P \neq NP$ in FOL PA via axiom of extensionability	Conjecture	4	
1201	Panentheism as fragment of ontotheology	Conjecture	10	2
1202	Panentheism, panpsychism, and any interrelation	Question	11	
1203	Panentheism, paraconsistent god, deductive validity	Conjectures	38	
1204	Paraconsistency, classical, first-order view as novelty	Axiom	3	
1205	Machine-assisted view	Conjecture	3	
1206	First-order belief	System	4	
1207	Idempotent full negations not algebraizable	Conjectures	3	
1208	Models of ZF invoking Leibniz' law	Conjectures	13	
1209	Paraconsistent contradiction	Axioms	2	3
1210	Paraconsistent Gödel modal logic	System	9	
1211	Paraconsistent logic on one conjecture	Conext	4	
1212	Paradise as gnostic states of duality	Conjecture	3	
1213	Paradox refutation (anonymous)	Paradox	19	
1214	Paradox refutation reduced to one variable	Theorem	1	
1215	Parameterized-time action (PAL), intention to time	Logic	3	
1216	Parikh's logic G and completeness of system Par	Method	3	9
1217	Parikh theorem for infin. alphabets via sets with atoms	Theory	7	
1218	Partial awareness	Axiomatization	3	
1219	Partial information decomposition (PID) on variables	Method	24	
1220	Partial order reduction (POR): stubborn/sleeping sets	Methods	7	
1221	Partial ordering on dependencies	System	8	1
1222	Partial quantifier elimination (PQE)	Conjecture	2	
1223	Partition logic adjunction	Definition	3	
1224	Pascal's wager thought experiment	Definition	4	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1225	Pauli exclusion	Theorem	4	1
1226	PCF (possible cofinality) algebras, Jech/Shelah proof	Theorem	4	
1227	Peano arithmetic 9, 1-8	Principle	4	
1228	Extended truth definitions	Axioms	1	8
1229	Pearl model for cause-effect	Model	10	
1230	Peirce's abduction, induction, deduction	Essay	11	2
1231	Peirce's abduction, induction by his bag of white beans	Rules	34	
1232	Peirce's white bean bag as syllogistic for only deduction	Theorems	32	4
1233	Perfect being theology, greatest possible being (GPB)	Definition	2	
1234	Perfect being theology, perfect goodness	Definition	19	
1235	Perfectoid field, spaces, almost mathematics	System	4	
1236	Persistence principle of logic IL ⁻	System	3	
1237	Personal identity for Swinburne's inquiry of bodies/souls	Argument	5	
1238	Petit's discursive dilemma, generalization and derivatives	Dilemma	6	
1239	Petri net	Theorems	3	
1240	Petri nets, continuous, separators	PJroof	10	
1241	Phenomenology, grounded theory (GT), interpretative(IP)	Logics	9	
1242	Philosophy of religion, contemporary, not using proverbs	Status	9	
1243	Another version in 300 words	Status	9	
1244	Another version in 300 words with BASIC bio	Status	9	
1245	Pigeonhole principle	Principle	10	2
1246	Pincherle and Heine theorems	Theorems	12	
1247	Ping pong thought framework	Definitions	2	
1248	PL4	Conjecture	4	1
1249	PL4 and MPL4 logics with derivatives	Systems	26	
1250	Plancherel measure on Langland's conjecture	Conjecture	3	
1251	Plantinga's modal ontological proof of existence of God	Argument	14	7
1252	Playfair's axiom	System	10	
1253	Łonka sums of Boolean algebras	Definition	5	
1254	Łonka sums of inclusive consequence relations	Axiom		1
1255	Poincaré recurrence theorem	Inclusion	1	
1256	Points, Grzegorzczuk and Whitehead reconciliation	Reconciliation	7	
1257	Poison modal logic (PML)	Theorem	2	
1258	Politeness, finite witness, stable-infiniteness	Conjectures	13	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1259	Potentialism, varieties of class-theoretic	Conjectures	19	
1260	Pomset and Lambek logic	System	4	
1261	Pope Francis, Nancy Pelosi after USA excommunication	Hypocrisy	7	2
1262	Karl Popper on God	System	3	
1263	Poset products are relational models	Models	20	
1264	Positive logic with h-inductive universal sentences	Proof	4	14
1265	Coalgebraic modal logic	Conjecture	6	
1266	Modal logic	Conjecture	3	
1267	(modal) logic beyond distributivity	Conjectures	26	
1268	No strongest extension	Conjecture	16	
1269	Non-distributive, meet-simulation on semilattices	Fragment	10	
1270	PowerEpsilon mathematical induction	Variety	4	
1271	Pratt-Floyd-Hoare logic correctness	Axiom	10	
1272	Prayer, five types, Historic Church	Theorems		10
1273	Predicate logic, bi-intuitionistic, Craig interpolation	Theorems	5	
1274	Predicative collapse, arithmetical comprehension	System	5	
1275	Preference profiles	Conjectures	5	
1276	Prenex normal format (PNF)	Algorithm	6	
1277	Every eq. in classical logic is has an eq. in PNF	Theory	58	
1278	Shortest refutation based on implication	Rules	11	3
1279	Pre-orderable groups	Rules	2	2
1280	Presburger arithmetic	Conjecture	3	
1281	Divisibility (PAD) for one-counter automata	Conjecture	4	
1282	Visser's conjecture in multi-dimensional case	Conjecture	4	
1283	Presupposition different from entailment	System	3	
1284	Pretabular PM2 extension to S4 to deny unification	Logics	3	6
1285	Pretabular PM2, 3, 4 extensions to S4 to deny unification	Logics	8	
1286	Prevarieties and quasivarieties of logic	Conjecture	3	
1287	Priest's satisfaction scheme and reduction embellishment	Paradoxes	7	
1288	Priesthood, non-male or gendered	Conjectures	6	
1289	Primal infon logic with conjunctions as sets	Logic	5	
1290	Prisoner's paradox	Monoids	4	
1291	Probabilistic approximate logic (PALO)	Paradox	3	
1292	Probabilistic computation logic in AI	Conjecture	2	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1293	Probabilistic logics, real-valued, with 0-1 laws	System	34	
1294	Probabilistic reasoning across the causal hierarchy	System	1	
1295	Probability logic and connexive logic	System	9	
1296	Probability logic, multivalued, fuzzy	Conjectures	10	
1297	Probability logic, Löb deriv. condit., fixed point theorem	System	8	
1298	Probability logics, modal, interpolation by Grz logic	Conjecture	13	
1299	Probability logics, propositional, LPP ₁ and LPP ₂	Conjectures	10	
1300	Problem of evil (shortest known)	Theory	17	
1301	Problem of evil, source as free will of man	Problem	4	
1302	Problem of evil, cause from free will, original sin	Origin	2	
1303	Plantinga	Definitions	5	3
1304	Product algebra, product fuzzyy, logic, compl./decid.	Logic	8	
1305	Program verification	System	8	
1306	Programs theory, Bertrand Meyer	Theory	7	
1307	Prolog answer set to legal problem of V.C. Valjean	Method	6	
1308	Pronouns, human, non-binary	Assertions	6	
1309	Pronouns, plural, collective of they/them for God	Assertions	5	
1310	Proof theory, converging reduction-, model-based method	Conjectures	10	
1311	Proof value VL4 bivalent modal/quantified semantic trth.	Metatruth	14	
1312	Propositional logic, sequential decomposition	Rules	3	
1313	Propositional modal logic, Zhang's relational translation	Method	23	
1314	Non-commutative with short-circuit Equiv, And	Conjectures	14	
1315	Propositional proof systems (PPS), consistency proofs	Definitions	3	
1316	Prototype verification system (PVS)	Prover	20	
1317	US Gov't prover and 17 variations of Anselm	Product	18	
1318	Provability logic GL, Japaridze polymodal GLP	Reduction	1	
1319	HA (Heyting algebra), decidability,intuitionistic	System	60	
1320	Reduced: Löb; complete; necessity	Logics	8	
1321	Prover9 computational metaphysics by Fitelson and Zalta	Axioms	8	
1322	Prover9 vs Meth8 differences	Logic	5	
1323	Proving general theorems by inequality benchmark	Theorem	2	
1324	Pure alethic modal logic	System	6	
1325	Puzzle about indefinites	System	1	1
1326	Q-map for Boolean connectives cast in quantum circuits	Circuits	6	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1327	Quality function deployment (QFD)	Theorem	13	
1328	Quantification hypothesis, external approach to set theory	Theory	5	
1329	Quantified Boolean formulas (QBF), proof complexity	System	26	2
1330	Quantified elimination (QE) by examples	Method	6	
1331	Quantified modal logic theorem proof (QMLTP)	Library	8	
1332	Quantified modal logic translation to high order logic	Proofs	6	
1333	Quantified modifier rewrite rules	Connectives	5	
1334	Quantified reflection calculus with one modality	Conjecture	9	
1335	Quantified respective modal operators by word meanings	Theorem		4
1336	Quantifiers and operators	Method	3	
1337	Quantifiers, bounded	Connectives	12	
1338	Quantum arithmetic for repeat-until-success	Conjecture	43	
1339	B-algebras with involutions	Circuits	12	
1340	Blockchain encoding	Conjecture	3	
1341	Circuit algorithms, Gurevich	Conjectures	11	
1342	Circuit optimizer, verified for CNOT in Coq	Cryptography	1	
1343	Classical logic as completion of QL	Conjecture	3	
1344	Control by observation	System	16	6
1345	Entanglement	System	1	
1346	Field logic (QFL), local	Logics	8	
1347	Gates correspond to logical operators	Conjecture	5	
1348	Gates refuted	Theorems	4	1
1349	Gedanken experiment	Theorems	8	1
1350	Group relations in categorification	System	7	
1351	Hoare type theory and applications	System	109	
1352	Honeywell computer C-NOT truth table	Conjectures	8	
1353	Logic as tautologous	Claim	3	
1354	Logic with temporal logic, renamed translogic	Conjectures	30	
1355	Mechanics, contextuality, borders of paradox	Conjectures	24	
1356	Mechanics, negative probabilities	Conjecture	18	2
1357	Monadic algebras based on $\exists 0=0$	Conjectures	16	
1358	Logic, orthomodular	System	17	2
1359	Predicate logic with uniform quantization	Method	14	
1360	Masking classical information	System	6	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1361	Probability	System	4	
1362	Probability	Axiom	1	
1363	Set theory based on De Morgan laws	Rule	2	
1364	Set theory of Takeuti to satisfy De Morgan's laws	Theory	5	
1365	Set theory with different conditionals for reals	Theory	27	
1366	Simulation of Hamiltonian spectra	Definition	3	
1367	Spin-statistics	Operator	1	
1368	Superposition as the red herring	Theorem	4	4
1369	Superposition disproves Schrödinger cat	Conjecture	3	
1370	Temporal logic based on Löwner order	Conjecture	5	2
1371	Ternary probability of qutrit	System	4	
1372	Three lights experiment of qutrit	Hypothesis	3	
1373	Quaternion implication truth table	Conjecture	1	
1374	Query answering, finite open-world with num restrict	Conjecture	3	
1375	Questions and answers	Definition	4	1
1376	Quine-McCluskey reduction of Boolean function	Algorithm	6	
1377	Quine's new foundation NF, urelemente NFU, stratified	Theory	15	
1378	Quine's NF/NFU stratification approach	Theory	17	
1379	Quotient in theory of preordered heap structures	Theorem	9	
1380	Racism based on individualism and exceptionalism	Wokeness	2	
1381	Ramsey's theorem / Pythagorean triple of integers	Problem	4	1
1382	Ranjan, A.	Theorem	8	
1383	Random join property for reals in PA (Peano arithmetic)	Conjecture	11	
1384	Range restricted (RR) queries to the Codd algebra	Theory	3	
1385	Ranked pentagon lattice	Problem	2	
1386	Rational emotive behavior therapy (REBT/LBT)	System	4	
1387	Man in abstract argumentation	Systems	16	
1388	Rauszer 'concrete' Boolean algebra by preorder	Conjecture	3	
1389	Rawls' fair equality of opportunity (FEO)	Hypothesis	23	
1390	Reachability as tower complete	Problem	2	
1391	Real addition w/wo predicate integers	Systems	13	
1392	Realizability models (r.m.): ZFC axioms	Conjectures	9	1
1393	Realizability semantics for QML	Theory	3	
1394	Recombination and paradox	Methodologies	39	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1395	Regular path queries (RPQ), run-based semantics	Theory	3	
1396	Reichenbach common cause / event-splitting	Theorems	3	
1397	Related logics	System	5	
1398	Relational logic ReLoC, invariant linking of states	System	6	
1399	Relativization (structural induction) in weighting	Principle	6	3
1400	Relevance logic	Method	1	
1401	Definition in R	System	7	
1402	Residuated lattice	Model	2	
1403	Gentzen provability	Conjecture	2	
1404	Law of residuation	Claim	5	
1405	Multilattice as set of truth values, poset	Definition	4	
1406	Quantales	Operators	10	
1407	(Semi)lattice-ordered algebra	Conjecture	3	
1408	Resolution-based decision procedure, 2-vars equality	Conjecture	3	
1409	Reverse derivative categories	Method	9	
1410	Reverse mathematics: recursive comprehension	Definition	4	
1411	Big five hypothesis	Hypothesis	38	
1412	Measurability and computability	Principle	10	2
1413	Nets	Theory	1	2
1414	Sander's with Blumberg's theorem	System	4	
1415	Rival-Sands theorem, sequence principle	Theory	11	
1416	Uncountability of Reals by compreh, separat.	Theory	5	
1417	Rewriting logic for compositional specification	Conjectures	4	
1418	Rice-Shapiro theorem, generalized computability theory	Theorem	5	
1419	Riemann: as only zeroes at 0, 1/2	Conjectures	4	
1420	Excluded middle	Hypothesis	1	
1421	Extended complex numbers on sphere	Conjecture	4	
1422	Integrals for a cheating runner	Operators	3	2
1423	Simple inequality	Theorem	2	
1424	Zeta function, Caceres Proposition 6	Definition	7	
1425	Zeta function, hypothesis	Conjecture	2	
1426	Zeta function, properties	Proposition	4	
1427	Robinson arithmetic	System	5	
1428	Robinson arithmetic, Stafford's formal theories, axioms	System	21	

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1429	Robotics, three laws and ethical machines	Laws	5	
1430	Roman Catholic Church (RCC) Canon law	Axioms	7	
1431	Erasmus contra Luther	Theorem	4	
1432	Infallibility and the Historic Church	Conjectures	4	
1433	Invalid epiclesis with silent Holy Ghost	Pius IX	2	
1434	Magisterium	Canons	4	1
1435	Primacy of the Roman See	Paul VI	1	
1436	Sacred heart of Jesus	Pius XI	1	
1437	Scourge of fundamentalists / Lambeth 1888	Pius XI	3	
1438	Tradition above scripture	Francis	6	1
1439	Twelfth promise of St Alacoque	Pius IX	4	
1440	Roscelin's nightmare	Conjecture	13	8
1441	Rosser's theorem on consistency	Conjecture	3	
1442	Rosser theorem on essential undecidability, definition	Theory	3	
1443	Rosy structures	Conjectures	8	
1444	Rota lattice theory, distributive	Theorem	6	1
1445	Ruitenburg	Theorem	2	
1446	Ruitenburg theorem on lattices of intermediate theory	Conjecture	8	1
1447	Russell	Axiom	1	
1448	Russell-Myhill paradox	Paradox	18	2
1449	Russell-Prawitz embedding	Paradox	4	
1450	S5II+ propositional quantification	Conjectures	7	
1451	Sabotage modal logic (revisited)	System	1	
1452	Sacchetti's modal logics of provability	System	6	
1453	Sahlqvist formulas and correspondence theory	Axioms	5	
1454	Sahlqvist modal reduction principles	Principles	8	
1455	Sahlqvist modal / quantified correspondence	Definition	1	
1456	Sahlqvist non formulas as tautologous	Theory	7	
1457	Same-sex attraction as temptation only and not as sin	Conjecture	10	
1458	Sanchez-Rey fluctuations as threat to markets	Conjecture	2	
1459	Satan, neuter angel with cloven hoofs, spewing semen	Animation	2	
1460	Satisficer as God with derived conjectures	Conjectures	10	
1461	Saturation theorem proving, open induction	Conjectures	18	
1462	Schaefer for graphs, P, NP, NPC, NPH, NPI	Theory	1	

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1463	Schellenberg's theodicy and proffered denial	Theorems	8	1
1464	Schematic refutations of formula schemata	Theorem	10	
1465	Schizophrenic logic of fascist Kalus Schwab on privacy	System	8	
1466	Schizophrenic logic of Pope Francis market crisis chain	Predictions	3	
1467	Schrödinger's cat thought experiment	Method	2	
1468	Schröder–Bernstein theory: Cantor's statement C	Corollary	3	
1469	Schwarzschild metric as equivalent to no-hair theorem	Conjectures	9	
1460	Scott class set	Theory	3	
1471	Data types as lattices, profunctors	Hypothesis	22	
1472	Existence axiom in sheaf theory	Paradox	2	
1473	Sets and set problem	Conjecture	5	
1474	Topology, temporal types, landscapes	Conjecture	5	
1475	Search fund study	Theory	4	
1476	Second-order arithmetic	Model	2	
1477	Quantifier elimination / Craig interpolation	System	20	
1478	Quantifier elimination into first-order logic	Products	9	
1479	Second-order logic as fragment of set theory, foundation	Theory	17	2
1480	Security barrier	Product	3	
1481	SEIR model, modified for Covid-19 in PRC by CCP	Model	14	
1482	SEIR model, typical	Model	3	
1483	Self-equilibrium	Model	5	2
1484	Self-proving fixed-point predicate modal logic on GL	Law / Paradox	1	
1485	Self-referential families barely avoiding self-truth	Conjectures	6	
1486	Self-verifying axioms for grounding functions	Defin./Theorem	4	
1487	Semantic processing P300	Definitions	16	
1488	Semi-equational theories	Theorems	112	5
1489	Semi-groups, demonic refinement, finite representability	Definition	3	
1490	Semisimplicity, Glivenko, Heyting, intuitionistic, LEM	Conjectures	40	1
1491	Separability for straight-line string constraints	Problem	3	
1492	Separation axiom in first- and second-order logic	Conjecture	4	
1493	Separation logic by inference frame and proof rule axiom	Axioms	8	
1494	Concurrent to extended concurrent modular forms	Theorems	24	
1495	Transforming antecedents, entailment systems	Conjectures	55	1
1496	Separator logic by reducing unbrakable bags into FOL	System	14	

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1497	Sequent-style system, Horn rules of abstract proof theory	Foundation	10	1
1498	Serenity prayer: duality of not change/change	Prayer	3	
1499	Set theory as based on individuals	Conjecture	20	2
1500	Set theory condensable models by satisfaction classes	Conjecture	7	
1501	Textbook 1977 exercises as inadvertent denial	Axiom	4	
1502	Sets, multiverse	Axioms	43	
1503	Shallow embedding for rewriting equality in MLTL	Theorems	3	
1504	Sheep dilemma with wolves, orbit equiv., amenability	Dilemma	11	
1505	Shevenyonov extension nary antropic to PL	Rule	7	
1506	Shramko-Wansing nightmare in 4^n logic	System	16	2
1507	Sikter's self-contained theory of truth	Hypothesis	5	
1508	Simplify theorem prover for program checking	Prover	8	
1509	Simpon's paradox	Paradox	4	
1510	Simulation argument and incompleteness	System	21	
1511	Mistakes in rebuttal of refutation above	Conjecture	1	
1512	Imply operator injected for Bayes' pipe	Conjectures	6	2
1513	Single axioms for group theory and Abelian groups	Conjecture	1	
1514	Situation logic, calculus, model, plan-generator, Petri net	System	34	
1515	Skolem axiom form	Conjecture	6	
1516	Skolem (Boolean) function synthesis, normal form	Conjecture	2	
1517	Skolemization relevance	Conjecture	3	
1518	Sleigh's rule attributed to a modal fallacy	Fallacy	5	
1519	Sliding scale theorem in law	Axiom	1	
1520	Smullyan asylum puzzle	Puzzle	31	
1521	Software development method (SDM)	Confirmation		2
1522	Software requirements and design	Draft	2	2
1523	Solovay arithmetical / semantical completeness	Theorem	3	
1524	Modal system GL	Theory	4	
1525	Sorites	Theorem	10	2
1526	Sort logic by ZFC-like axioms	System	14	
1527	Soul, denial of refutation of physicalistic proof	Paradox		2
1528	Soul as unique identifier ala Swinburne	Conjectures	14	
1529	Special theory of relativity: Crothers refutation	Theorem	3	
1530	Specification drivers, axioms, Eiffel product line	System	10	

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1531	Spirituality religion via direct product of good and evil	Conjectures	9	
1532	Spirituality as false religion (shortest known)	Conjectures	7	
1533	Splitting proofs for refutational theorem proving	Confirmation	1	4
1534	SQ ontologies as undecidable, tree structures as solution	Conjectures	6	
1535	Square (Łukasiewicz) and Cube (Seuren)	Interpolation	3	
1536	Square of Opposition Meth8 Corrected	Systems	27	15
1537	Modern Revised	System	2	4
1538	Proportions	System	2	
1539	Theoremhood with edge formulas	System		1
1540	Theoremhood with edge and diagonal formulas	System		2
1541	St Petersburg paradox	Proportions	3	
1542	Stable set lattices	Paradox	7	
1543	Stacey's ontological arguments and detractor objections	Conjectures	32	
1544	Stage theory, level theory, Boolean variations	Theory	35	
1545	Stit logic (see to it that)	Modal operators	2	
1546	Stit logic, belief-desire-intention BDI	System	10	
1547	Stone rendition of Boolean algebra	Hypothesis	11	
1548	Stone representation: conjunctive-join semi-lattices	Theorem	2	
1549	Stone space type lattice logic model	System	13	
1550	Stone-Wales rotation transform reversibility	Theory	2	
1551	Stratified comprehension	Axioms	5	
1552	Strict order property (SOP), Lachklan's problem	Conjecture	5	
1553	Strong jump inversion, decided saturated model	Theorem	2	1
1554	Structure identity principle (SIP)	Principle	7	1
1555	Student quiz conjecture	Logic	1	
1556	Stump penal substitutionary atonement theory, objections	Theorem	6	4
1557	Sturmian words, decidability	Theorem	8	
1558	Subordination algebras on modal logic	Algebra	14	
1559	Subsumption demodulation in theorem proving	Paradox	2	
1560	Superposition of states	Method	10	1
1561	Superset, finite reconstruction game: ZFC set not ZFC set	Theory	3	
1562	Supervenience	Definition	3	
1563	Supply and demand	Principle	6	
1564	Surveillance objectives	Conjecture	6	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1565	Susceptible exposure infectious recovered (SEIR) model	Model	5	
1566	Suslin functional S, non-monotone induction	Theorem	4	
1567	Suszko's minimal truth values for universal logic	Subgames	2	
1568	Suszko's complete induction rule, canonical set theory	Theory	10	
1569	Świerczkowski hereditary incompleteness theorems	Conjectures	8	2
1570	Swinburne on Anselm wrongdoing	Conjectures	6	
1571	Swinburne's bodies and souls	Conjectures	9	
1572	Symmetries of structures failing to interpret finite things	Theorems	3	
1573	Symmetry breaking, skeleton, ensemble, SMT solver	Problem	3	
1574	Symplectic vector space	Method	3	
1575	Synthetic theorems, AI L.C.T. Lee's theorem	Theory	3	
1576	Tactic learning and proving for Coq proof assistant	Conjecture	4	
1577	Tarski's classical relevant logic	Theorem	2	
1578	Tarski's fallacy	Theorem	9	
1579	Tarski's geometric axioms and betweenness	System	5	
1580	Tarski's undefinability of truth	System	8	5
1581	Tarski–Grothendieck set theory	Theorem	2	
1582	Tarski–Grothendieck Metamath	Axiom	2	
1583	Tarski-Lindenbaum axioms as axiom of choice	Conjecture	24	
1584	Tarski's planar Euclidean R-geometry	Axiom	7	
1585	Tarski's quantifier elimination (QE)	System	8	2
1586	Tautology problem and two dimensional formulas	Conjecture	9	
1587	Linear Temporal logic (LTL) as networks (RNNs)	Conjecture	4	
1588	Decidability, complexity	Conjecture	7	
1589	Over infinite intervals, completeness	System	7	
1590	Via instant- and interval-based models of time	Reduction	2	
1591	Temporal states, mapping relation: past as a theorem	Theorems		2
1592	Tense logic, display labeled proof back to tense logic	Conjecture	6	
1593	Term rewriting for automated theorem proving	Logic	5	
1594	Ternary relations as width of first-order expansions	Conjecture	8	
1595	Theism, sketpical (ST): morally MST, empirically EST	Conjecture	11	
1596	Theist's necessary truths, Schellenberg	Propositions	3	
1597	Theological pluralism denied, exclusivism affirmed	Conjectures	16	2
1598	Theories, meta-mathematical properties via Robinson	Relationships	22	2

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1599	Theory of logic for glutty, gappy relations	Method	2	
1600	Three-valued, bivalent logic VL3	System	16	
1601	Three variable sufficiency to real-time logic	System	14	
1602	Three wise men in 55 steps (shortest confirmation)	Conjecture		2
1603	Time algorithm	System	15	
1604	Time as God	Conjecture	3	
1605	Time as past/present/future in Cartesian dimension	Definition	4	
1606	Time and space to define God by hack physicists	Hobby	2	2
1607	Time as tense via converse implication (EQT)	Conjecture	3	
1608	Time warp algebra, decidable equations, Z3 prover	Theory	4	
1609	Time warps, normal form with binary operators	Conjecture	29	
1610	Tm* non-normal modal logic, possible worlds, Barcan	System	44	1
1611	Topoi, elementary in logic	Conjecture	2	
1612	Topological manifold transition	Definition	3	
1613	Semantics of paraconsistent/paracomplete logics	Conjecture	11	
1614	Sound, higher-dimensional diagram rewriting	Structures	8	
1615	T ₀ -space	Function	1	
1616	Topology, combinatorial, impure simplicial complexes	Axiomatization	11	
1617	Topology of causality as four states in lieu of three states	System	6	
1618	Topology space, De Vries: Whitehead abstracting points	Method	16	
1619	Totherian sets	Defintion	3	
1620	Trace semantics in coalgebra	Theory	5	
1621	Traces, finite: monitoring arithmetic temporal properties	Method	4	
1622	Tradition beneath Scripture	Theorem	6	2
1623	Transgenderism	Argument	12	
1624	Transgenderism by free will	Conjecture	5	
1625	Transgender-study, UGDS survey questions	Hypothesis	16	4
1626	Translation invariance of superposition calculus	Theory	5	
1627	Traveling salesman complexity problem	Property	2	
1628	Triangle inequality	Conjecture	1	1
1629	Trichotomy	Conjecture	2	2
1630	Trinitarian number, antiunitarian, wo divine perfection	Confirmation	20	5
1631	Trinity, cause of heresy as defective theology	Theorem	8	1
1632	Logical problem	Problem	2	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1633	Persons and relations	Confirmation		2
1634	Triune God, philosophical challenge	Problem	10	2
1635	Triune Godhead, three Persons of Orthodox Christianity	Theorems		2
1636	Trivial proofs for a troll	Law	11	
1637	Trolley ethical thought experiment	Conjectures		3
1638	Truth confirmation, contra Gödel second incompleteness	Confirmation	6	
1639	Truth tables of 4-variables p-s as And, Or, Xor, Imply	Tabulation		
1640	Turing halting problem	Problem	3	
1641	As logically unsolvable	Problem	2	1
1642	Infinite time machines by semi-decidable norms	Conjectures	10	
1643	Non-halting for machine apparatus	Conjecture	16	
1644	Twin paradox	Problem	2	
1645	Two-sided page	Paradox	2	
1646	Two-variable logic, recursive calls, satisfiability	Theory	3	
1647	Type theory	Paradox	5	1
1648	Constructive on completeness theorems	Theorem	5	
1649	Groups, and relations	Method	27	
1650	Ultimate L and V	Theory	2	
1651	Ultrafilter extensions of binary relations	Conjecture	2	
1652	Ultrapower axiom: change of space = ultrafilter	Axiom	3	
1653	Ultrapower of universe, projective determinacy	Conjecture	5	
1654	Unanswered logic questions	Hypotheses	2	
1655	Undecidable theories, weak, mutual interpretability	Conjecture	6	
1656	Unfalsified conjectures, unfalsifiability	Conjectures	2	1
1657	Unification nets (canonical proof net quantifiers)	Conjecture	2	2
1658	Simple symmetrical modal logics	Conjecture	9	
1659	Unity of logic as sequential and unpolarized	Type	2	
1660	Universal absolution taught by Pope Francis	Assertions	8	
1661	Universal finite set	Calculi	8	
1662	Network	Theorem	2	
1663	VŁ4 logic	Operator	5	
1664	Universalism	Logic	6	
1665	Unsharp implication, pseudocomplem. meet-semilattice	Theory	13	
1666	Urelements forcing	Method	23	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1667	Urysohn space	Group	3	
1668	Utility representation in economics (1954)	Theorem	15	
1669	Valatsos on cogito, ergo sum	Proof	4	
1670	Validation obligation (VO) by example from IVOIRE 1.1	Example	97	10
1671	Vaught's conjecture for discretely ordered structures	Hypotheses	15	
1672	Veblen (corrected)	Concept	6	
1673	Vector conjecture for two points implying a third	Axiom	1	1
1674	Veracity logic, contradiction elimination	System	7	
1675	Verilog / VHDL hardware logic, corr	Conjecture	4	
1676	Veronoï regions (with "nonempty sets")	Connectives	36	
1677	Vickrey auction	Definition	3	
1678	Vietoris space modal operators	Theorem	10	2
1679	Viper, saturation-based theorem prover	Definitions	2	
1680	Visibility graph / Kanban cell resuscitation	Prover	5	
1681	VŁ4 completeness confirmed	Algorithm	1	1
1682	Soundness confirmed	Theorem	1	1
1683	Theorems for S5	Theorem	2	1
1684	Voevodsky: indiscernables, univalence, foundations	System	7	2
1685	Voevodsky: Univalence axiom $(A=B) \simeq (A \simeq B)$	Axiom	8	
1686	Voluntarism, ill-chosen criticism of Williams' anti-	Agents	32	2
1687	Voluntarism, salvific luck in Mohammedan theology	Conjectures	11	
1688	Voluntarism, theological, partial defense	Conjectures	3	
1689	Vongehr's shift rendering QM "natural"	Theorems	8	
1690	W (K4W)	Paradigm	2	3
1691	Wadge order (and on Scott domain)	Theorem	1	
1692	Wagner-Preston inverse semigroup as symmetric monoid	Theorem	1	1
1693	Weak set H to prove its own consistency	Theorem	4	
1694	Weingartner logic (WL), axiom of non-contingent good	System	5	
1695	Weisfeiler-Lehman: apply neural reasoning on graphs	Theory	3	
1696	Weisfeiler-Lehman method	Methodology	6	
1697	Well ordering property	Theory	2	
1698	Wellfoundedness, incompleteness by ordinal analysis	Axiom	2	
1699	Wellfoundedness of multiset order	Axiom	4	
1700	Wellfoundedness, ordinal analysis, reflection, oracle	Characterization	6	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1701	White's model for creation	Theorem	2	
1702	Wholeness axioms, separating	Lemma	14	
1703	Williamson paradox via weak-necessity identity principle	Paradox	2	
1704	Wiccan analytical theology, vicarious incarnation	Claims	9	
1705	Wittgenstein's ab-notation	System	7	1
1706	Woke ideology pronouns by semantical use of gameted	Argument		
1707	Wolfram's notorious "babies can't manage crocodiles"	Proof	25	
1708	Word concatenation of finite models	System	3	
1709	X-homology on manifolds in topology	Definition	5	
1710	Yablo's paradox (confirmed as tautology)	Conjecture	3	
1711	Yalcin logic	Axiom	1	
1712	Yinyang	Axioms	2	
1713	Zadeh first operators on fuzzy logic	System	1	3
1714	Historical assumptions	System	5	
1715	Perfect / strong functions, residuated operator	Axioms	4	1
1716	Resolution and symmetry in Z-numbers	Conjectures	3	
1717	Swedes and Italians logic challenge	Definitions	3	
1718	Zaionic paradox, most classical theorems as intuitionistic	Paradox	5	
1719	Zariski topology affine varieties, scheme theory	Problem	3	
1720	Zermelo-Fraenkel constructive (CZF)	Definitions	3	
1721	Constructive ZF set theory (CZF)	Conjectures	17	
1722	Zermelo-Fraenkel axiom of infinity, weaker version	Axiom	2	
1723	Zermelo-Fraenkel (ZF) 10 axioms, Mary Tiles' paradise	Axioms	22	
1724	ZF set theory as paraconsistent and paracomplete	Connectives	9	
1725	ZF shortest contra 9 axioms	Axioms	9	1
1726	ZFC Choice in 1 operator, 2 vars, 4 connects	Axiom	3	
1727	Consistency in Isabelle/ZF	Conjecture	8	
1728	Subsets	Conjecture	4	
1729	ZFC Empty set	Axioms	10	
1730	Shortest refutation	Axiom	2	
1731	ZF Law of excluded middle: infinite set	Axioms	10	1
1732	ZFC Extensionality	Axiom	3	
1733	ZFC Extensionality (another rendition)	Axiom	1	1
1734	ZFC Extensionality (Kuratowski pairs/barrier)	Axiom	3	

No.	Name of artifact	Type of artifact	Non Taut.	Tautology
1735	ZF*-extensionality to interpret full ZF axioms	Axioms	13	
1736	Non-wellfounded sets / anti-foundation axiom	Axiom	1	
1737	Other refutations of ZFC axioms (10)	Axioms	21	
1738	Proper class of discernables: L(Sepr, Coll, Regu)	Formulas	3	1
1739	Supremum and infimum	Axiom	2	
1740	ZFC ⁰ : schemas of comprehension, replacement	Definitions	3	
1741	Axiom of comprehension: recursive rev. math.	Axiom	6	
1742	Zero and three in arithmetic	Axioms	2	
1743	Zero calculus: multiplication, addition, subtraction	Theorems		9
1744	Zero knowledge proof	Conjectures	4	
1745	Zeroth law of thermodynamics	Theorem	1	
1746	Rendering quantifiers as modal operators	Theorem	3	2
1747	Meth8 on Modus Cesare and Modus Camestros	Appendix		12
1748	Availability of Meth8/VŁ4	Appendix		
1749	Demo for 2-variables (p,q)	Marketing collat.	2	1
1750	Scalability of Meth8/VŁ4	Marketing collat.		
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